Form approved. Rudget Bureau No. 42-R1425.

(Other instruction on reverse side)

UNITED STATES
DEPARTMENT OF THE INTERIOR

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	GEOL	OGICAL SURVE	Y			พื้ดด−ั8	3308-1033	
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2. NAME OF OPERATOR					<del>*</del>	Nava io	Tribal	
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Chuska Energ	уу со.					14-10	. <u> </u>	
c/o 3E Comp	any Inc Poy	100 Espaina	ton NM 07	400	100		POOL, OR WILDCAT	
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preventer program, if an					<u> </u>			<del></del>
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SCALE-4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER. VISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

EEALI

FARMINGTON, N. M.

## FORMATION INFORMATION AND DRILLING PRACTICES

CHUSKA ENERGY CO. Navajo Tribal No. 14-10 SESW Sec 10-40S-24E San Juan Co., Utah



DIVISION OF GAS & MINING

#### Surface Formation:

Morrison

#### Estimated Formation Tops:

Dechelly	2690
Organ Rock	2780
Hermosa	4600
Ismay	5440
Desert Creek	5600
Chimney Rock	5750
T.D.	58 <b>00</b>



DIVISION OF OIL, GAS & MINING

#### Estimated Depth of Anticipated Water, Oil, Gas or Minerals:

0i1 5440 0i1 5600

#### Proposed Casing Program:

0-100' 13 3/8", 54.5#/ft., ST & C, J-55 new casing; cement with 120 cubic feet class "B" +2% CaCl<sub>2</sub> + 1/4# celophane flakes per sack

0-1300' 8 5/8", 24#/ft. ST & C, K-55 new casing; cement with 800 cubic feet 65-35 poz mix + 6% gel + 3% CaCl<sub>2</sub> followed by 200 feet class "B" + 2% CaCl<sub>2</sub>. Cement will be brought to surface.

0-5800' 5 1/2", 15.5#/ft., ST & C, K-55 new casing; cement with 450 cubic feet 50-50 poz mix + 2% CaCl<sub>2</sub> + 10% salt + 0.8% fluid loss additive. Cement top at 4,000'.

#### Pressure Control Equipment - Blow Out Preventor:

The attached schematic shows the type of blowout preventor to be used while drilling. The unit will be tested to 800 psi prior to drilling from under the surface pipe.

#### Drilling Fluids:

DEPTH	TYPE	VIS.	WEIGHT	•	FLUID LOSS
0-1300'	Gel-lime	35-45	9.0		not controlled
1300-4000'	Gel-chem	35-45	9.5		15cc
4000-5800'	Low solids	45-50	10.0		9cc

#### 7. Auxiliary Equipment:

Bit Float

Stabbing valve to be used to drill pipe when kelly is not connected.

#### Logging - Coring - Testing Program:

IES, CNL, FDC Logging - Open Hole:

4000' to t.d. Mud:

Possible in Lower Ismay and Desert Creek Testing:

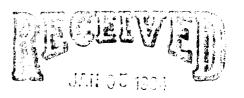
Coring : None Planned

#### 9. Abnormal Temperatures, Pressures or Potential Hazards:

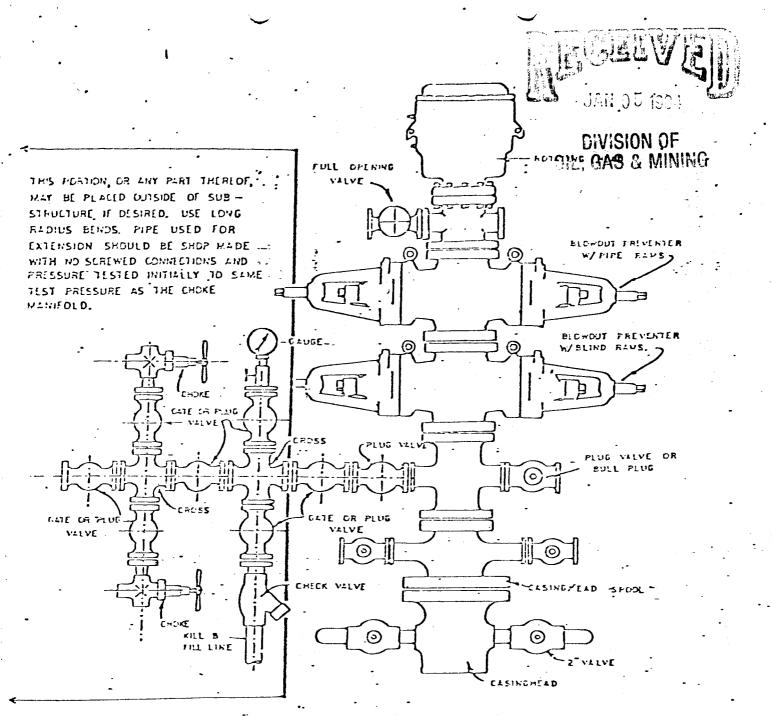
None Expected

#### 10. Starting Date:

Anticipated starting date is February 1, 1984. Approximately 5 days will be required to build roads and location. Drilling will take about 15 days. Completion should be accomplished in 6 days.



DIVISION OF GEL, GAS & MINING



BLOWOUT PREVENTER HOOKUP

#### SURFACE USE PLAN



CHUSKA ENERGY CO. Navajo Tribal No. 14-10 SESW Sec 10-40S-24E San Juan Co., Utah DIVISION OF ORL, GAS & MINING

#### Existing Roads (shown in green)

The attached topographic map show all existing roads within one mile of the proposed location. The access will be from Utah Hwy. 262 at the Aneth Trading Rost.

#### 2. Planned Access Road (shown in red)

The new access road will exit from the south side of an existing secondary road. Total length of new road is 1000 feet. Maximum grade is 5%. No water bars, culverts, or turnouts are needed.

#### 3. Location of Existing Wells

All existing oil, gas, water, drilling and disposal wells are shown on the attached topographic map.

#### 4. Location to Tank Batteries, Prod. Facilities & Prod. Gathering & Service Lines

All production facilities are to be contained within the proposed location site. The operation has no other facilities in the area.

#### 5. Location and Type of Water Supply

Fresh water for drilling will be trucked from the San Juan River, 12 miles South of the location.

#### 6. Source of Construction Materials

Any gravel or other construction material that can not be obtained from the excess accumulated from building the location will be purchased from the Navajo Tribe.

#### 7. Methods of Handling Waste Disposal

All trash will be carried to a land fill or burned. All nonburnable materials (drilling fluids, cuttings, chemicals) will be stored in the reserve pit and then buried when they have dried. Any oil produced while drilling will be trucked from the location prior to leaving pit to dry out. Pits will be completely fenced during drying time, then backfilled with dirt prior to preparing the location for production or abandonment.

- 8. A portable chemical toilet will be supplied for human waste.
- 9. Ancillary Facilities No ancillary facilities are planned.
- 10. Well Site Layout The attached layout shows the drilling rig with all associated facilities. Cut and fill required is also indicated.

#### 11. Plans for Restoration of Surface

Restoration of the wellsite and access road will begin within 90 days of well completion, weather permitting, and if required by private land owner. Should well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed up and leveled. Both drillsite and road will have any topsoil replaced and will be reseeded when germination of seeds can take place. In either case, cleanup of the site will include burning of any safely burnable material, filling of all pits,

carrying away of all nonburnable material and any chemicals that cannot be safely buried, and the hauling off of any oil that may have accumulated on the pits while drilling. A burn permit will be acquired if necessary.

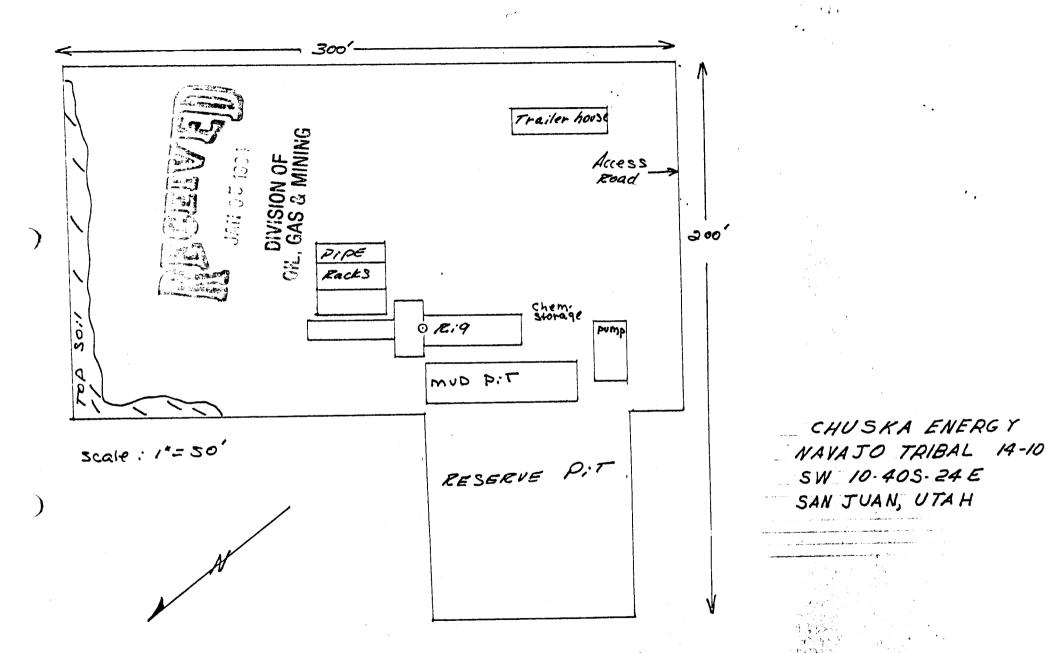
- 12. This location is on a north westerly slope. The area is sandy and covered with native vegetation. No residences are in the immediate area.
- 13. John Alexander
  3E Company, Inc.
  Box 190
  Farmington, NM 87499
  Phone: 505-326-1135
- 14. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Chuska Energy Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

John Alexande

Agent

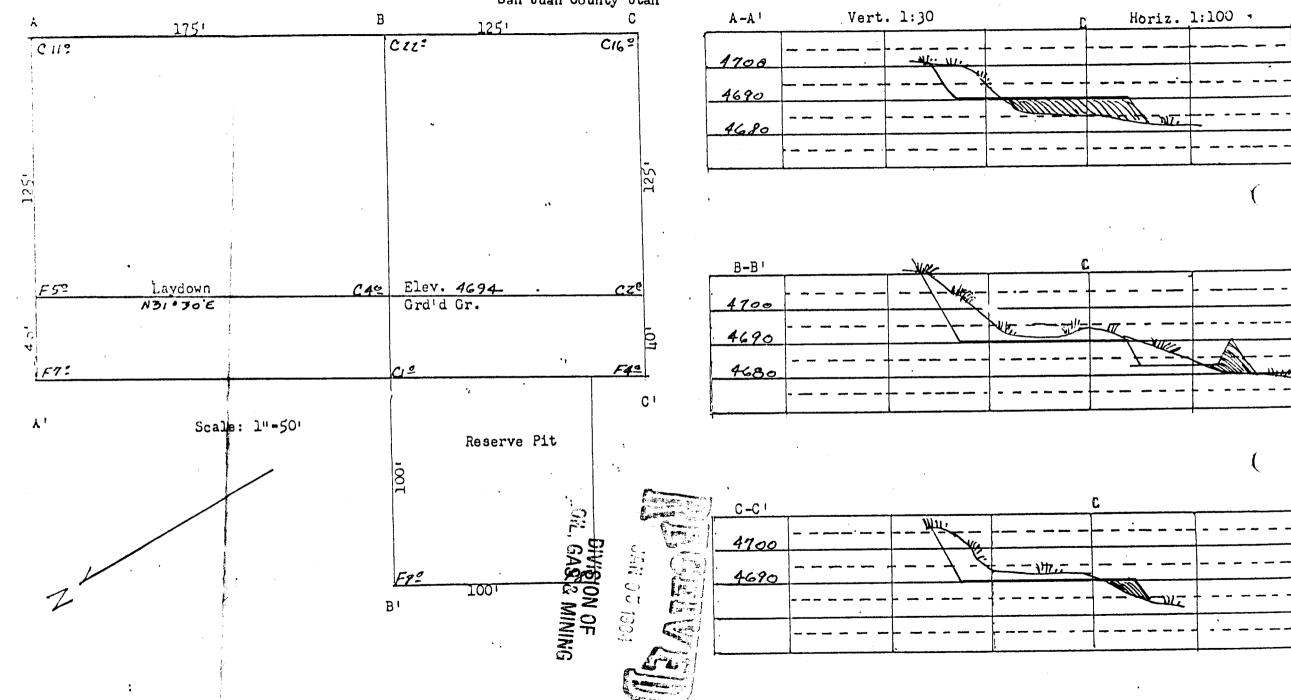
December 28, 1983

JA:kj



Profile for

Chuska Energy Company #14-10 Navajo Tribal 540'FS 820'FW Sec. 10-405-24E San Juan County Utah





OPERATOR Chusha Energy Cov. WELL NAME Navajo Pribal 14-10	DATE 1-6-84
WELL NAME Navajo Cribal 14-10	
SEC <u>SWSW10</u> T 405 R 24E	COUNTY San Juan
43 - 037 - 30977 API NUMBER	TYPE OF LEASE
POSTING CHECK OFF:	
INDEX	HL
NID	PI
PROCESSING COMMENTS:	
CHIEF PETROLEUM ENGINEER REVIEW:	
APPROVAL LEITER:	
SPACING: A-3 UNIT	c-3-a  CAUSE NO. & DATE
c-3-b STIPULATION:	с-3-с
Water STIPULATION:	

RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.
AUTHENTICATE LEASE AND OPERATOR INFORMATION
VERIFY ADEQUATE AND PROPER BONDING
AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.
APPLY SPACING CONSIDERATION
ORDER
UNIT
c-3-b
с-3-с
CHECK DISTANCE TO NEAREST WELL.
CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.
IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER
IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.
VERIFY LEGAL AND SUFFICIENT DRILLING WATER

#### January 9, 1984

Chuska Energy Company c/o 3E Company, Inc. P.O. Box 190 Farmington, NM 87499

> Re: Well No. Navajo Tribal #14-10 SWSW Sec 10, T. 40S, R. 24E 540' FSL, 820' FWL San Juan County, Utah

#### Gentlemen:

Approval to drill the above referenced oil well is hereby granted in accordance with Rule C-3 (b), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulation:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

- Spudding notification to the Division within 24 hours after drilling operations commence.
- 2. Submittal to the Division of completed Form OGC-8-C, Report of Water Encountered During Drilling.
- 3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify R. J. Firth, Chief Petroleum Engineer, Telephone (801) 533-5771 (Office), 571-6068 (Home)

The API number assigned to this well is 43-037-30977.

Sincerely,

Petroreum Engineer

RJF/gl

cc: Branch of Fluid Minerals
Bureau of Indian Affairs

Enclosures

# DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

	8. LEASE NOG-8308-10	33	
	6. IF INDIAN, ALLOTTEE O	RJTI	RIBE NAME
	7. UNIT AGREEMENT NAM	E	
-	8. FARM OR LEASE NAME Navajo Tribal	,	
-	9. WELL NO. 34 35 14-10	5/ 	/ <del>-</del>
-	10. FIELD OR WILDCAT NAI Aneth		E- 2 / 1
,	11. SEC., T., R., M., OR BLI AREA Sec 10, 40S, 24E	K. A	ND SURVEY OR
	12. COUNTY OR PARISH 1 San Juan	13.	STATE Utah
	14 API NO		

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir, Use Form 9–331–C for at the in page deepen.)

gas X other well well 2. NAME OF OPERATOR Chuska Energy Co. 3. ADDRESS OF OPERATOR c/o 3E Company Inc., Box 190, Farmington, NM 4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 1 below.) 250' FSL & 460' FWL AT SURFACE: AT TOP PROD. INTERVAL: same AT TOTAL DEPTH: same 16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4708 G.L.

on Form 9-330)

results of multiple completion or zone

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
PULL OR ALTER CASING
MULTIPLE COMPLETE
CHANGE ZONES
ABANDON\*
(other) move location

SUBSEQUENT REPORT OF:

DIVISION OF

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

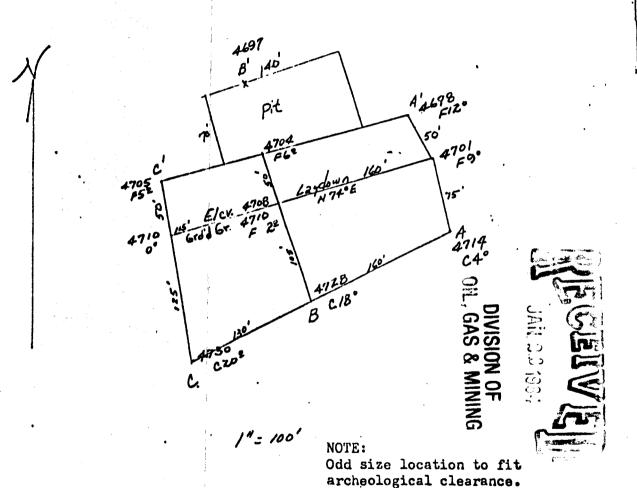
Operator request the location to be moved from 540' FSL & 820' FWL, Sec 10, 40S, 24E. This move is needed to avoid archaeologial sites on the original location. Since this is a non-standard location, the state will be contacted for an exception to the spacing regulations. A new plat is attached, remainder of the application is unchanged.

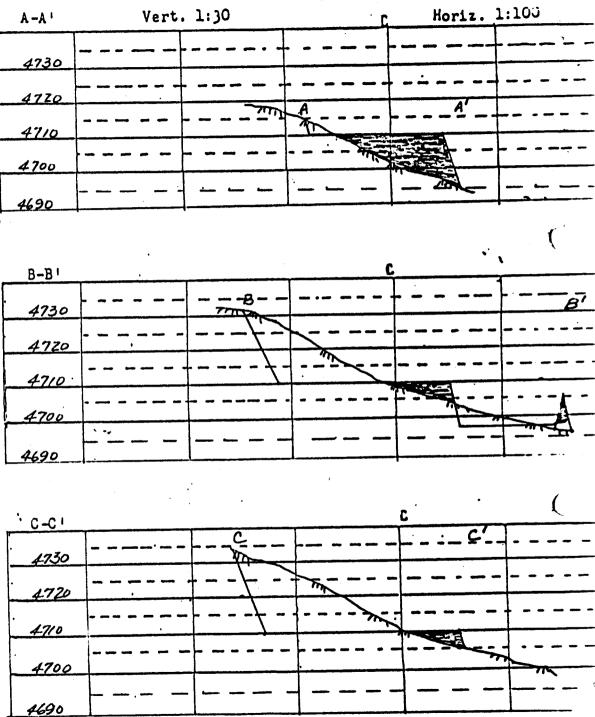
Subsurface Safety Valve: Manu. and Type			Set @	Ft.
18. I hereby certify that the foregoing is true and correct  SIGNED JUNE JUNE TITLE  JOHN Alexander	Agent	DATE	1/17/84	
(This space for Fe	deral or State offic	ce use)		
APPROVED BY TITLE CONDITIONS OF APPROVAL, IF ANY:		DATE .		

COMPANY	CHUSKA ENFRGY	COMPANY		
LEASE	NAVAJO TRIPAL	WELL !	yo. 14-10	
*EC	San Juan County	, Utah	•	<del>_</del>
LOCATION	250'FSL 460'FW	<u> </u>		
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January 1

Profile Map for Chuska Energy #14-10 Navajo Tribal 250'FS 460'FW Sec 10-40S-24E San Juan County Utah





J' 1 6 1984

DIVISION OF OIL GAS & MINING

May 25, 1984

GOV - EXCEPTION LOCATION CHUSKA ENERGY COMPANY NAVAJO TRIBAL 14-10 SAN JUAN COUNTY, UTAH

Mr. John Alexander 3E Company, Inc. P.O. Bex 190 Farmington, NM 87499

By your letter of April 27, 1984, you request that Texaco give consent to, and waive right of public hearing to the following described well location:

250' FSL and 460' FWL Section 10 - T408 - R24E San Juan County, Utah

Texaco, as Operator of the Ameth Unit, and as owner of oil and gas rights within a radius of 660° of the proposed well, does not consent to the proposed location. The proposed location is in violation of the specific requirements of the Order of the Commission dated February 24, 1960, Cause No. 17:

IN THE MATTER OF THE APPLICATION OF THE TEXAS COMPANY, THE CARTER OIL COMPANY AND CONTINENTAL OIL COMPANY FOR AN ORDER ESTABLISHING 80-ACRE DRILLING UNITS FOR THE ANETH POOL, SAN JUAN COUNTY, UTAH, WITH REFERENCE TO THE KNOWN PRODUCING ZONES OF THE HERMOSA FORMATION (CAUSE NO. 8) Mr. John Alexander 3E Company, Inc. Page 2

Very truly yours,

SIGNED: C. H. KOSUB

C.H. KOSUB Manager - Operations and Attorney-In-Fact

#### FSH: eub

cc: Board of Oil, Gas and Mining
Utah Department of Natural Resources 
4241 State Office Building
Salt Lake City, UT 84114

U.S. Bureau of Land Management 125 West 2nd S. Main P.O. Box 970 Moab, UT 84532

Shell Oil Company P.O. Box 831 Houston, TX 77001

Attn: Mr. J.H. Smitherman

Form 3160-5 (November 1983)		U ED STATE	S	BUBMIT IN CAT		Form approved. Budget Bureau Expires August	No. 1004 31, 198	5
(Formerly 9-331)		MENT OF THE				G 8308 1033		AL BO.
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Chuska Energy C	company			70T a . 45# .	Na	vajo Tribal	Ĺ	
3. ADDRESS OF OPERATOR	, angary			JCI 0 1 1984		WHLL NO.		
Box 2118, Farmi	ngton,	NM 87499				<b>-</b> 10		
4. LOCATION OF WELL (Rep See also space 17 below.	ort location	clearly and in accordance	e with and	MEIGNIGHOIL	1 .	FIELD AND POOL, C	M WILDCA	T
250 FSL 460 FWI			C	GAS & MINING		eth ssc., T., B., M., OR	BLE, AND	
Sec. 10T40SR249		tom Hole 525 FWI	. 525 FS	SL		SURVEY OR ARE	<b>A</b>	
Dec. Tol toble il		. 10T40SR24E	- )-)		Se	ec. 10T40SR2	24E	
14. PERMIT NO.		15. BLEVATIONS (Show	whether DF.	BT, GR, etc.)	1	COUNTY OR PARIS		_
43 037 30	977	4694GL			Sa	ın Juan	Utal	מ
16.	Check A	Appropriate Box To 1	ndicate N	ature of Notice, Report, c	r Other	Deta		
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TEST WATER SHUT-OFF		PELL OR ALTER CASING		WATER SHUT-OFF		1 Bepairing	WELL	$\neg$
FRACTURE TREAT		MULTIPLE COMPLETE		PRACTURE TREATMENT		ALTREING (	CABING _	
BHOOT OR ACIDIZE		ABANDON*		BROOTING OR ACIDIZING		ABANDONMI	TMI.	_
REPAIR WELL		CHANGE PLANS	<u>x</u>	(Other)	nlts of m	ultiple completion	on Well	
(Other)	OVBI PPED C	DEPARTONE (Clanely state	all pertinen	(Note: Report res	ompletion	Report and Log for	te of stat	tine and
proposed work. If a	ell is dire	ctionally drilled, give sub	urface locat	t details, and give pertinent di tions and measured and true ve	rtical de	the for all marke	rs and sor	ses perti-
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(This space for Esders	l er State	office use)			<del> </del>			
APPROVED BYCONDITIONS OF API	PROVAL, II		TITLE		· · · · · ·	DATE		<u>.,, ., </u>

\*See Instructions on Reverse Side

## DIVISION OF OIL, GAS AND MINING

DATE 1-21-85

NAME OF COMPANY. CHIEVA
NAME OF COMPANY: CHUSKA
WELL NAME: NAVAJO TRIBAL #14-10
SECTION SW SW 10 TOWNSHIP 40S RANGE 24E COUNTY San JUAN
DRILLING CONTRACTOR Energy Search
RIG #
SPUDDED: DATE 1-18-85
TIME 8:15 PM
HOW Rotary
DRILLING WILL COMMENCE
REPORTED BY JOhn Alexander (3E Company)
TELEPHONE #

SIGNED RJF

SPUDDING INFORMATION API #43-037-30977



Scott M. Matheson, Governor Temple A. Reynolds, Executive Director Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 23, 1985

Bureau of Land Management Branch of Fluid Minerals P.O. Box 970 Moab, Utah 84532

Attention: Carol Fruediger

Gentlemen:

Re: Well No. Navajo Tribal 14-10 - Sec. 10, T. 40S., R. 24E.

San Juan County, Utah - API #43-037-30977 - Lease #NOG 8308 1033

Operator of Record - Chuska Energy Co.

The above referred to well in your district was given State of Utah approval to drill January 9, 1984. This office has not received notification of any activity on this location.

If you have received any information on this location would you please send a copy to this office?

Thank you for your help in keeping our records up to date.

Sincerely,

Claudia L. Jones Well Records Specialist

cc: Dianne R. Nielson Ronald J. Firth John R. Baza File

00098/1

	UNITED STATES PARTM T OF THE INTER BUREAU OF LAND MANAGEMEN		
SUNDRY	NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Use "	or proposals to drill or to deepen or plug APPLICATION FOR PERMIT—" for such	proposals.)	Navajo
OIL (X) GAB			7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR	THEE		S. FARM OR LHASE NAME
Chuska Energ	y Co.		Navajo Tribal
3. ADDRESS OF OPERATOR  P	18 Farmington, NM 8749	0	9. WELL NO.
4. LOCATION OF WELL (Report le	cation clearly and in accordance with an	7 y State requirements.*	14-10 10. PIELD AND POOL, OR WILDCAT
See also space 17 below.) At surface			Aneth
250' FS	L & 460' FWL		11. SEC., T., R., M., OR BLK. AND SURVEY OR ARMA
			10-40S-24E
14. PERMIT NO.	16. ELEVATIONS (Show whether D	F, RT, GR, etc.)	12. COUNTY OR PARISE 13. STATE
· · · · · · · · · · · · · · · · · · ·	4694' GR		San Juan Utah
<sup>16.</sup> Che	ck Appropriate Box To Indicate I	Nature of Notice, Report, or C	Other Data
	F INTENTION TO:		UBNT REFORT OF:
TEST WATER SHUT-OFF	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CARING
SHOOT OR ACIDIZE	ABANDON*	SHOOTING OR ACIDIZING	ABANDONMENT*
(Other)	CHANGE PLANS	(Other) (Note: Report results	of multiple completion on Well letion Report and Log form.)
Set 76' 13 3, 79 cu.ft Clas hole at 2015 casing to 154 +1/2 lb Floce sack +2% CaCl Class "B" + 3	78 54.5 lb casing with a ss "B" cement. Moved in hours 1/18/85. Drilled 19'. Cemented with 930 cells per sack followed by 2. Maintained partial cells CaC12 as an outside joo complete 1/20/85.	rat hole rig on 1/17/ Energy Search Rig 2. to 1564'. Ran 8 5/8" u.ft. Class "B" + 4% 354 cu.ft Class "B" +	Spudded 12 1/4" 24 lb per foot Gel + 0.6% Halad-9 1/4 lb Flocele per iob. Used 207 cu ft
		6	SELVED AN 24 1985
8. I hereby ce-tify that the total	other is grue and correct  Light Age	OH, GA	1/22/05
(This space for Federal or Sta	ander		DATE
•	n vente use;		
APPROVED BY	IF ANY:		DATE

form 3160-5 lovember 1983) formerly 9-331)	JUNITED S		SUBMIT IN TP IC. (Other lastruc of	Expires A	proved. Bureau No. 1004-013 August 31, 1985 NATION AND BERIAL NO.
	BUREAU OF LAND			NOG-830	08-1033
SUN (Do not use thin	DRY NOTICES AND	REPORTS O	N WELLS	<b>,</b>	LLOTTEE OR TRIBE HAM!
	form for proposals to drill or Use "APPLICATION FOR PE	RMIT—" for such proj	PECEUSE	Navajo	
OIL X GAB	OTHER .		VIEO EI AED	7. UNIT AGREEM	BNT MAME
2. NAME OF OPERATOR Chuska F	nergy Co.		FEB 1 1 1985	8. FARM OR LEA Navajo	
3. ADDRESS OF OPERATOR				9. WELL NO.	
P. U. BO.  4. LOCATION OF WELL (Re	x 2118 Farmington eport location clearly and in action.	NM 87499	DIVISION OF OU	14-10	
See also space 17 below At surface 250	*.) ' FSL & 460' FWL	occordance with any Bu	G. AB. WINING	Aneth	OOL, OR WILDCAT
1				11. SEC., T., E., I SURVEY OF	C., OR BLK. AND
14. PERMIT NO.				10-405-	
		(Show whether DF, ET 28 KB	, GR, etc.)	San Juan	PARISH 18. STATE Utah
16.	Check Appropriate Bo	x To Indicate Nat	ure of Notice, Report, o		
No	OTICE OF INTENTION TO:	1		SEQUENT REPORT OF:	
TEST WATER SHUT-OFS PRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (Other)	PULL OR ALTER ( MULTIPLE COMPI ABANDON* CHANGE PLANS		WATER SHUT-OFF  FRACTURE TREATMENT  SHOOTING OR ACIDIZING  (Other)	ALTER	RING WELL ING CASING ONMENT®
17. DESCRIBE PROPOSED OR C	COMPLETED OPERATIONS (Clear) well is directionally drilled, given	v state all pertinent de	Completion or Reco	ults of multiple complompletion Report and L	og form.)
nent to this work.) *	well is directionally drilled, gi	ve subsurface locations	and measured and true ve	rtical depths for all m	arkers and sones perti-
casing to	77/8" hole to 5820 5820'. Cemented 0.6% Halad-9. Ma 2/6/85.	with 385 cu.	ft. Class "H". 1	O 1b Calseal.	
	. •				
					•
	•				
			•		
18. I hereby certify that the	forgeoish is true and correct				
SIGNED_JOHN	Clepande	TITLE Agen	t	DATE(	02/07/85
(This space for Federal	inder one use)				

\*See Instructions on Reverse Side

DATE \_

APPROVED BY \_\_\_\_\_\_CONDITIONS OF APPROVAL, IF ANY:

## RECEIVED

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING 4241 State Office Building Salt Lake City, UT 84114

FEB 1 3 1985

DIVISION OF OIL GAS & MINING

#### \*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name & Number Navajo 1	ribal 14-10			
Operator Chuska Energy Co.		Address Box 2	2118 Farmingto	on, NM 87499
Contractor Energy Search Dril		Address Box	190 Farmingtor	n, NM 87499
Location SW 1/4 SW 1/4	Sec. 10	T. 40S R	. 24E Coun	ty San Juan
Water Sands			·	•
Depth	Volume	;	Qualit	Y
From To	Flow Rate o	r Head	Fresh or	Salty
1. None encountered				
2			· - · · · · · · · · · · · · · · · · · ·	
3				
4				
5.				
(Continue	on reverse s	ide if necess	sary)	
Formation Tops  De Chelly Organ Rock Hermosa  Remarks	2762' I 4540' (	Jpper Ismay Lower Ismay Gothic Shale Desert Creek	5558' 5596'	
				1 5 1

- NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
  - (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

Form 3160-5 (November 1983)	UNITED STATES	BUBMIT IN TRIPLICATES OD (Other instructions for re-	Form approved. Budget Bureau No. 1004-0135 Expires August 31, 1985	<b>.</b>
(Formerly 9-331)	BUREAU CILAND MANAGEMENT		NOG 8308-1033	
SUN (Do not use this	NDRY NOTICES AND REPORTS Conform for proposals to drill or to deepen or plug by use "APPLICATION FOR PERMIT—" for such pr	ON WELLS ack to a different reservoir.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME NAVAJO	-
1. OIE CV GAS			7. UNIT AGREEMENT NAME	-
2. NAME OF OPERATOR	L_J OTHER		S. PARM OR LEASE NAME	-
CHUSKA ENE	ERGY COMPANY		NAVAJO TRIBAL	-
P. O. BOX	2118 FARMINGTON, NEW MEXICO	87499	14-10	
4. LOTATION OF WELD ( Sec also space 17 be At surface	Report location clearly and in accordance with any low.)	State requirements.*	10. FIBLD AND POOL, OR WILDCAT	
	& 460' FWL		ANETH 11. BRC., T., R., M., OR BLK. AND	•
			10-40S-24E	
14. PERMIT FO.	18. ELEVATIONS (Show whether DF. 4707' K.B.	BT, GR. etc.)	12 San Juan 13. STATE Ut ah	
	Check Appropriate Box To Indicate N	ature of Notice, Report, or O	other Data	
	NOTICE OF INTENTION TO:		ENT REPORT OF:	
TEST WATER SHUT-	PULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING WELL	
FRACT BE TREAT	SCLTIPLE COMFLETE	PRACTURE TREATMENT	ALTERING CABING	
REFAIR WELL	ABANDON® CHANGE PLANS	(Other)	ABANDONMENT	
temp or j		Completion or Recomple	of multiple completion on Well etion Report and Log form.)	
propose, work. I need to this work.)	BE COMPLETED OPERATIONS (Clearly state all pertinent f well is directionally drilled, give subsurface locati	details, and give pertinent dates, ions and measured and true vertica	including estimated date of starting and depths for all markers and gones peril	
Perforate 28% HCL-N	d Desert Creek zone 5620-5628' E acid. Swab test 80 b.o.p.d.	with 2 shots/ft. Act Job complete 2/16/8	idized interval with 1800 35.	) ga
20,0 ,104 ,11		·		
		4 •	•	
		MECEIVED		
		EPD		
		FEB 2 2 1985		
		DIVISION OF OIL		
	•	GAS & MINING	• .	
	•			
				ুক্ট ু
		***************************************		
18. I hereby certify that		onations Managon	2/20/85	
SIGNED Sohn A	examer	erations Manager	DATE	• •
(This space for Fed	eral or State office use)			
CONDITIONS OF A	PPROVAL, IF ANY:		DATE	
CONDITIONS OF A				

\*See Instructions on Reverse Side

Form 3160-4 (November 1983) (formerly 9-330)

#### UN-ED STATES

SUBMIT IN DUPL\_\_\_E.

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OPL CE	
(Secother	in
structions	οn
Teverse SE	le)

Form approved.
Budget Bureau No. 1004-013
Expires August 31, 1985

5 Lease Designation and Serial N
NOC 8308-1033

	OMPLETION (		PLETION	EOF	WPDO	G *	6. IF INDIAT	N, ALLOTTEE OR TRIBE NAM
Is. TYPE OF WE	WELL			Other			7. UNIT AGE	EFMENT NAME
NEW WELL X	WORK DEEP-	D PH D	DIFF RESVR	FEB 25	1005		S. PARM OR	LEASE NAME
2. NAME OF OPER			THE RESIDENCE OF THE RE					TRIBAL
Chuska E	nergy Company			PIVISION		,	9. WELL NO	
	x 2118, Farmi	ngton. New		<b>GAS &amp; N</b> 7499	MINING		14-10 10. FIELD A	ND POOL, OR WILDCAT
. LOCATION OF W	ELL (Report location	clearly and in acc			ircments)*		Aneth	
,	250' FSL & 46			51	NSW		11. SEC. T., OR AREA	R, M., OR BLOCK AND BURVE
At top prod. is	nterval reported below	485' FSL	. & 490' FN	L			10-405	i-24e
At total depth	508' FSL & 4	193' FWL	14. PERMIT NO.		DATE ISSUED		12. COL NTY	OR 13. STATE
			43-037-3	30977		/	San J	
. DATE SPUDDED	16. DATE T.D. REA		COMPL. (Ready to		S. ELEVATIONS	DF, RKB, F	RT, GE, ETC.)*	19. FLEY, CASINGHEAD
1/18/85	2/4/85	2/15			4707' X			#695
ROTAL DEPTH, MI	4(TVD) 5778 (MI	back t.d., mp & tv )\5762(TVD)	HOW M			TERVALS	0-5820	OLS CABLE TOOLS
	ERVAL(8), OF THIS CO			ID AND TVD	•		<u> </u>	25 WAS DIRECTIONAL SURVEY MADE
	5628(MD) Dese	ert Creek						Yes
-	O 5613 (TVD)		<u></u>			agentario e e e e en administrações a administra		27. WAS WELL CORED
nsity-Neu	tron, Dual Ir	duction						No
			G RECORD (Rep					
CABING SIZE	WEIGHT, LB./FT			LE SIZE		EMENTING		AMOUNT PULLED
13 3/8 8 5/8	<u>54.5</u> 24	76 1549		1/2	<b>79 cu ft</b> See reve			None None
5 1/2	15.50	2850,	7	7/8	See reve			None
<u> </u>	L	NER RECORD			30.		TUBING REC	CORD
BIZE	,		BACKS CEMENT*	SCREEN (	MD) SIZ	Е	DEPTH SET (	MD) PACKER SET (MD
N/A					27	/8	5648	Wone
. PERFORATION R	ECORD (Interval, size	and number)	W	82.	ACID, SHO	T, FRACT	URE, CEME	NT SQUEEZE, ETC.
5620'-56 <b>28</b>	' 0.35"	2 shots/	/ft	1 -	NTERVAL (MD)			NO OF MATERIAL USED
-				5620-	5628	1800	sal 287	HCL-NE acid
					·			
							· · · · · · · · · · · · · · · · · · ·	
3.*				OUCTION			1 90.00	L STATUS (Producing or
ITE FIRST PRODUC />=/Ge			oscing, gas lift, pi	umpinget2	e ana type oj p	ump)		Shut-in
/15/85	HOURS TESTED	CHOKE BIZE	PROD'N, FOR	OILBBL	. GAS	MCF.	WATER-B	
/15/85	8	N/A	TEST PERIOD	26.6	1   6	6.7	0	2504
OW. TUBING PRESE	. CABING PRESSURE	CALCULATED 24-HOUR BATE	оп.—ввг Во	GAS	—мс <b>г.</b> 200	WATER-	RBL. <b>О</b>	OIL GRAVITY-API (CORR.)
•	GAR (Sold, used for f	uel, vented, etc.)	1 00		400	<u>i</u>	TEST WITH	
To be se	1d						John A	lexander
	HMENTS							
), LIST OF ATTAC								
5. LIST OF ATTAC	fy that the foregoing	and attached inf	ormation is comp	lete and co	rrect as determ	ined from	all available	records
	fy that the foregoing	and attached inf			rrect as determ		all available	· · · · · · · · · · · · · · · · · · ·

TOP	MEAS, DEPTH VERT, DEPTH	2660 2660 2762 2762 4532 4532 5444 5430 5558 5544 5596 5582 5614 5599 5754 5775					
	NAME	Dechelly Organ Rock Hermosa Upper Ismay Lower Ismay Gothic Shale Desert Creek Chimney Rock Akah T.D.					
DESCRIPTION, CONTENTS, ETC.			lad-9 + 1/2 lb Flocele lb Flocele + 2% CaCl <sub>2</sub> cu ft Class "B" + 3% CaCl <sub>2</sub>	+ 10% salt + 0.6% Halad-9 e survey.			
MOTTOR	mo1100		+ 0.6% Hz "B" + 1/4 surface ; with 207	ing 1b Calseal + 7 temperature			
dOt			Ψ . υω	duction cas ss "H" + 10 100' (MD) b			
recoveries):	FORMATION		Cement 8 5/8" sur 930 cu ft Class followed by 354 Cement did not Cement outside	Cement 5 1/2" production casing 385 cu. ft. Class "H" + 10 lb Calseal Cement top at 4100' (MD) by temperatur	* <b>)</b>		

(12/93)

#### STATE OF UTAH

## DIVISION OF OIL, GAS AND MINING 355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

Page 1	م ا	3
ı agc	of	,

### MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:	_		UTAH	ACCOUNT NUMBER	N9290	
LARRY G SESSIONS CHUSKA ENERGY COMPANY 3315 BLOOMFIELD HWY			REPO:	RT PERIOD (MONTH.	/ <sub>YEAR):</sub> 12 / 93	·
FARMINGTON NM 87401			AMEN	NDED REPORT□ (H	(ighlight Changes)	
Well Name	Producing	Weil	Days		Production Volumes	
API Number Entity Location	Zone	Status	Oper	OIL(BBL)	GAS(MCF)	WATER(BBL)
116-1 NAVAJO TRIBAL			- оры		0.20	······································
4303715390 00545 41S 25E 31	DSCR					
NAVAJO TRIBAL 23-13	Dock		1			
4303730971 09420 40S 24E 13	DSCR					
NAVAJO TRIBAL 42-2						
V4303731017 09425 425 24E 2	DSCR		! !			
NAVAJO TRIBAL 24-13			† · · · · · · · · · · · · · · · · · · ·			<del></del>
√4303730970 09435 40S 24E 13	DSCR					
NAVAJO TRIBAL 41-2						
4303731041 09437 425 24E 2	DSCR					;
NAVAJO TRIBAL #32-26			}			
4303731060 09990 405 22E 26	DSCR					
VAJO TRIBAL 14-10	DCCD					
₩303730977 10130 405 24E 10 SAHGZIE NO. 1	DSCR					
4303731472 11032 425 24E 5	DSCR					
ANASAZI #1	DOCK					
√4303731478 11042 425 24E 5	DSCR					• .
CAJON MESA 8-D-1						
4303731497 11074 40S 25E 8	DSCR					
MONUMENT #8-N-2						· · · · · · · · · · · · · · · · · · ·
√4303731509 11087 40S 25E 8	DSCR					
TOWER #1 1-2						
√4303731507 11088 40S 25E 1	ISMY					
RUNWAY 10G #1						
√4303731515 11105 40S 25E 10	DSCR					
			TOTALS			
			1011122			
OMMENTS:						
hereby certify that this report is true and complete to	the best of my	y knowledge	<b>2.</b>	Da	nte:	
Name and Signature:					Telephone Number:	



## HARKEN SOUTHWEST CORPORATION

(formerly Chuska Energy Company)

We are pleased to announce that effective January 18, 1994, Chuska Energy Company, has changed its name to Harken Southwest Corporation. This is in line with the February 1993 merger with Harken Exploration Company.

Harken Southwest Corporation is still located at 3315 Bloomfield Highway, Farmington, New Mexico, 87401. You may still contact us at (505) 326-5525.

Please reflect this name change as necessary on all future correspondence.

Thank you for your assistance in this matter and we look forward to working with you as Harken Southwest Corporation.

Sincerel

Barry A. Wieland Operations Manager RECEIVED

FEB n 7 1994

DIVISION OF OIL, GAS & MINING

## Division of 0il, Gas and Mining PHONE CONVERSATION DOCUMENTATION FORM

	Well File [] Suspense [] Country to:  [] Country
1.	Date of Phone Call: 2-9-94 Time: 12:29
2.	DOGM Employee (name) / Cordova (Initiated Call 14)  Talked to:  Name Wayne Townsend (Initiated Call []) - Phone No. (505) 599-8900  of (Company/Organization) Bym / Farming for N.M.
3.	
4.	Highlights of Conversation:  They have not rec'd doe of name change. When they do receive doe they will most likely keep "Chuske" as operator yet mail any correspondence of Harken, until BIA approval. (BIA approval may take a while!)  # 940210 for admin. Of the change.

	of Oil, Gas and Mining OR CHANGE HORKSHEET		<b>)</b>		Royting:	J <sub>A</sub> ]
	ll documentation received by the division reg each listed item when completed. Write N/A i				2.DTS > 8-F 3-VLC - 4-R.J.F) /	
		□ Designation of ☑ Operator Name			5-I 20 6-PL	
The op	erator of the well(s) listed below ha	as changed (EFFE	CTIVE DATE:	1-18-94	)	
TO (ne	w operator) <u>HARKEN SOUTHWEST CORPORAT</u> (address) <u>3315 BLOOMFIELD HWY</u> <u>FARMINGTON NM 87401</u>	<b>ION FROM</b> (forme 		CHUSKA ENER 3315 BLOOMF FARMINGTON	IEID HWY	
	phone <u>(505) 326-5525</u> account no. <u>N 9290</u>	<del></del>		phone <u>(505</u> account no.		
Hell(s	) (attach additional page if needed):					
Name:_ Name:_ Name:_ Name:_	**SEE ATTACHED**  API:	Entity: Entity: Entity: Entity: Entity: Entity: Entity: Entity: Entity:	SecTwp SecTwp SecTwp SecTwp	oRng Lo oRng Lo oRng Lo oRng Lo	ease Type:_ ease Type:_ ease Type:_ ease Type:_ ease Type:_ ease Type:_ ease Type:_	
<u>Lee</u> 1.	OR CHANGE DOCUMENTATION  (Rule R615-8-10) Sundry or other operator (Attach to this form). (Rule R615-8-10) Sundry or other <u>le</u> (Attach to this form).	d 2-7-99/				
Lee 3.	The Department of Commerce has been operating any wells in Utah. Is c yes, show company file number: #090	ompany register 204 .	ed with the	state? (yes	//no)	If
,	(For Indian and Federal Hells ONL) (attach Telephone Documentation Forments section of this form. Machanges should take place prior to o	nagement review completion of st	of <b>Federal</b> eps 5 throug	and Indian ph 9 below.	well opera	ator
	Changes have been entered in the Oi listed above (2-10-94)				for each w	ve I I
Lec 6.	Cardex file has been updated for each	ch well listed a	bove. (2-10-9)	47		
fec 7.	Well file labels have been updated f	for each well li	sted above.	(2-10-94)		
,	Changes have been included on the for distribution to State Lands and	the Tax Commiss	ion.			
<u>Lec</u> 9.	A folder has been set up for the Opplaced there for reference during re					oeen

ERATOR	CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A it item is not applicable.
	REVIEW
<u>Le</u> e1.	(Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
<u>NA</u> 2.	State Lands and the Tax Commission have been notified through normal procedures of entity changes.
BOND VE	ERIFICATION (Fee wells only)
NA 1.	(Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
2.	A copy of this form has been placed in the new and former operators' bond files.
<u> </u>	The former operator has requested a release of liability from their bond (yes/no) Today's date 19 If yes, division response was made by letter dated 19
LEASE ]	INTEREST OHNER NOTIFICATION RESPONSIBILITY
ots,	(Rule R615-2-10) The former operator/lessee of any <b>fee lease</b> well listed above has been notified by letter dated 19, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
<u>₩</u> // 2.	Copies of documents have been sent to State Lands for changes involving State leases.
FILMIN	G .
1.	All attachments to this form have been microfilmed. Date: March 7 1994.
FILING	
Lec 1.	Copies of all attachments to this form have been filed in each well file.
Lecz.	The <u>original</u> of this form and the <u>original</u> attachments have been filed in the Operator Change file.
COMMEN	TS .

WE71/34-35

Form	3160-5
(June	1990)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

i.	Lease	Designati	on and	Serial	No.

CHINDRY	NOTICES	AND	REPORTS	ON	WELLS
SUNDEL	MOLICES	AILD	NLFUNIO	$\mathbf{v}_{\mathbf{I}}$	**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT—" for such proposals

NOG 8308-1033
6. If Indian, Allottee or Tribe Name

NAVAJO

SUBMIT I	7. If Unit or CA, Agreement Designation	
1. Type of Well Oil Gas Well Well Other		8. Well Name and No.  NAVAJO TRIBAL 14-10
2. Name of Operator HARKEN SOUTHWEST CORPORATION 3. Address and Telephone No.	9. API Well No.  43-037-30977  10. Field and Pool, or Exploratory Area	
P. O. BOX 612007, DALLAS, TX  4. Location of Well (Footage, Sec., T., R., M., or Survey Desc  SEC 10-40S-24E  250' FSL & 460' FWL	11. County or Parish, State SAN JUAN CO., UTAH	
12. CHECK APPROPRIATE BOX(s)	TO INDICATE NATURE OF NOTICE, RE	PORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACT	ION
Notice of Intent  Subsequent Report  Final Abandonment Notice	Abandonment Recompletion Plugging Back Casing Repair Altering Casing Other Other	Change of Plans  New Construction  Non-Routine Fracturing  Water Shut-Off  Conversion to Injection  Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

Harken Southwest anticipates plugging and abandonment of the subject wellbore by year-end.

CC: State of Utah

Navajo Nation - Minerals Dept

BIA - Gallup, NM



Signed Augusto Soulgome has T	Fide PRODUCTION ADMINISTRATOR	Date 6/08/95
(This space for Federal or State office use)	Fitle	Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-5 (June 1990)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED

But get Bureau No. 1004-0135

Expires: March 31, 1993

5. Lease Designation and Serial No. NOG-8308-1033

SUNDRY NOTICES .  Do not use this form for proposals to dri  Use "APPLICATION FOR	AND REPORTS ON WELLS OF OIL GAS AND REPORTS OF THE PROPERTY TO A DIFFERENCE OF THE PROPERTY OF	NNG NAVA O	
SUBMIT	7. If Unit or CA, Agreement Designation N/A		
1. Type of Well  Oil Well Well Other  2. Name of Operator		8. Well Name and No. NAVAJO TRIBAL 14-10	
HARKEN SOUTHWEST CORPORATION  3. Address and Telephone No.		9. API Well No. 43-037-30977	
P. O. BOX 612007 DALLAS, TX  4. Location of Well (Footage, Sec., T., R., M., or Survey Do		10. Field and Pool, or Exploratory Area ANETH (DESERT CREEK)	
SECTION 10-40S-24E 250' FSL & 460' FWL		11. County or Parish, State SAN JUAN CO., UT	
12. CHECK APPROPRIATE BOX(	s) TO INDICATE NATURE OF NOTICE, REPO	ORT, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION	1	
Notice of Intent  Subsequent Report	Abandonment  Recompletion  Plugging Back	Change of Plans  New Construction  Non-Routine Fracturing	
Final Abandonment Notice	Casing Repair Altering Casing Other	Water Shut-Off Conversion to Injection Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	
Attached please find propos unsuccessful the BLM wil	Il pertinent details, and give pertinent dates, including estimated date of start cal depths for all markers and zones pertinent to this work.)*  sed workover proceedures on the subject well.  I be contacted regarding appropriate plugs a please contact Mr. Marshall Watson or the	If these procedures are stated in item 9.	
CC: Navajo Natior BIA - Gallup State of Utak		<b>J</b>	
	FCII	MEGUND COLLY	
14. I hereby certify that the foregoing is true and correct Signed  Signed	Title PRODUCTION ADMINISTRATOR	Date 7/27/95	
(This space for Federal or State office use)  Approved by Conditions of approval, if any:	Title	Date	

## WORKOVER PROGNOSIS NAVAJO TRIBAL #14-10

## Surface: 250' FSL & 460' FWL SEC 10 T40S R24E

## Bottom Hole 508' FSL & 493' FWL SAN JUAN COUNTY, UTAH

## All DEPTHS ARE MEASURED UNLESS STATED OTHERWISE

Present Status:

Shut in, pumping unit failure

Last Representative Test:

Pumping 4.3 BO + 1.6BW +3 MCF per day (mid 93)

Initial Potential:

Swb 80 BO + 0 BW + 200 MCF

Elevation:

4714 (GL)

Reference Depth:

4728' (KB)

Total Depth:

5820 (KB)

PBTD: 5764'

Wellhead:

Tbg set in slips with/packoff.

Casing Program:

13-3/8", 54.5 @ 16' cmt to surf

8-5/8 24# set @ 1549', cmt to surface

5-1/2" 15.5# set @ 5820', cmt w/385 cf in 7-7/8" hole to

4100' (Calc TOC)

Casing Collars:

5490.5, 5532.4, 5574.5, 5616, 5650

Reference Log:

Jet West CCL/GR dated 2/13/85 (depths are 1 ft deep to

open hole logs)

## Casing and Tubing Detail

Depth	Size (in)	Wt.#/ft,	Grade/ Thrd	Burst (psi)	Collapse (psi)	Yield: M#	Drift (in)	Capacity (bbls/ft)
surf- 5734	2-7/8	6.5	J-55 EUE	7260	7680	99	2.347	0.00579
surf- 5820	5-1/2	15.50	J-55 STC	4810	4040	202	4.825	0.0232

## **Perforation Record**

Date	Formation Shot Density		Depth Interval	Currently Open	
2/85	Desert Creek	2 JSPF	5620-28	Yes	

## Packers and Downhole Equipment

Depth	Description	Min ID (in)	Comments	
5566	TA			
5701	Seat Nipple	1.06	None	
5734	EOT	2.347	None	
	2 1/2 x 1 1/4 x 15 RWAC Pump	NA	None	
	52 jt 3/4" rods, 176 jt 7/8" rods, 1;+3/4 X 2 pony	NA	None	

## N.T. #14-10 WORKOVER/ COMPLETION PROCEDURE

Objective: Perforate and swab test Lower Ismay Zone (5576'-5582'), then P&F if unproductive.

- 1. Hold safety meeting and review procedures w/ rig crew.
- 2. MIRU completion rig.
- 3. Unseat pump and hot oil down tubing with 45 bbl fresh water +5 gallon paraffin inhibitor. POH with following pump and 76 API rod string laying down:

4400' - 176 - 7/8 X 25 'D' Rods 1300' - 52 - 3/4 X 25 'D' Rods 1 - 2 1/2 X 1 1/4 X 15 RWAC 1 - 3/4 X 2 pony rod

- 4. Unseat TAC, NDWHD, and NUBOP and pressure test to 400 psig using hot oiler.
- 5. POH standing back with +/-179 joints 2 7/8 tbg, TAC, 5 joints 2 7/8, SN, and 2 7/8 perforated tail joint.
- 6. RU perforators. Using 4" casing gun, perforate following interval: 5576'-5582', (total 6'), at 2 SPF 180 degree phasing, and 13 perforations. Depths to be correlated from the CCL/CR log date February 13, 1985.
- 7. PU Stradle packer with 12' spacing & GIH & set at 5573 and set. Pressure test Back side to 500 psi. Swab test and Report results to Dallas.
- 8. (Optional) RU Howco & Acidize with 600 gal heated 15% HCL at 1 BPM.
- 9. Swab well for test. After clean-up, produce through separator to determine gas rate. Timings for flow periods will be advised by Dallas office. Continue with following step. If non-productive, P&A well as per BLM specs.
- 10. If well is productive, POH and RIH with:

1 - 2 7/8 X 4 perf sub

1 - 2 7/8 tail it

1 - 2 7/8 SW

2 - 2 7/8 jt

1-27/8 X 5 1/2 Hog Anch

178 - 2 7/8 its

- 11. Pump 15 bbl fresh water down back side.
- 12. Set TAC 13,500 # in tension, ND BOP and NU WHD.
- 13. Complete well for final pump installation. RIH with following pump and rod string:

1 - 2 1/2 X 1 1/4 X 15 RWAC

1 - 3/4 X 2 pony rod

1300' - 52 - 3/4 X 25 'D' rods

4275' - 171- 7/8 X 25 'D' rods

- 14. Space out pump, hang-off and unit, and load tubing with 34 bbl lease oil. Pressure test tubing to 400 psi and turn over to production department.
- \*\* Account for all liquid pumped into and/or removed from well.

Fo (Ju

# UNITED STATES

FORM APPROVED

rm 3160-3  ine 1990) DEPARTMEN	T OF THE INTERIOR	Expires: March 31, 1993
	AND MANAGEMENT	5 Lease Decignation and Serial No.
BONEMO	AND REPORTS ON WELLSOF OIL, GAS &	MINING: 8308-1033
· SUNDRY NOTICES	AND REPORTS ON WELLOOF OIL, GAS a	6. It Indian, Allottee or Tribe Name
		·
Use "APPLICATION FOR	R PERMIT—" for such proposals	Navajo
		7. If Unit or CA, Agreement Designation
SUBMIT	IN TRIPLICATE	
. Type of Well		N/A
COIL Cas C		8. Well Name and No.
X Well Well Other Name of Operator		Navajo Tribal 14-10
•		9. API Well No.
Harken Southwest Corporation  Address and Telephone No.		43-037-30977
•	as 75261-2007 (214) 753-6900	10. Field and Pool, or Exploratory Area
P.O. Box 612007, Dallas, Texas Location of Well (Footage, Sec., T., R., M., or Survey D		Aneth
250' FSL & 460' FWL		11. County or Parish, State
Sec. 10-40S-24E		
		San Juan, UT
CHECK APPROPRIATE BOX	s) TO INDICATE NATURE OF NOTICE, REP	ORT, OR OTHER DATA
	TYPE OF ACTIO	
TYPE OF SUBMISSION	TIFE OF ACTO	
Notice of Intent	Abandonment	Change of Plans
	Recompletion	New Construction
X Subsequent Report	Plugging Back	Non-Routine Fracturing
, , ,	Casing Repair	Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	Other	Dispose Water (Note: Report results of multiple completion on Well
		Completion or Recompletion Report and Log form.)
13. Describe Proposed or Completed Operations (Clearly state a	all pertinent details, and give pertinent dates, including estimated date of sta	arting any proposed work. If well is directionally drilled
give subsurface locations and measured and true vert	ical depuis for all markers and zones permient to ans worm,	
The following work was per	formed between 08/02/95 and 08/11/95 in a	ccordance w/procedures
filed in July 1995 Perfo	rated Lower Ismay 5576-82' (6'), 4" gun,	2 JSPF, 180° phasing.

Acidized w/600 gal 15% HCL + additives. Inj rate of 2.5 BPM, 1900-2065 psi w/250 gal; inj rate 3 BPM, 2300-2400 psi w/350 gal. Swab well back & rec load. Swabbed Desert Creek (5620-28') and Lower Ismay (5576-82') together. Run pump and production string. Shut well in. Test production rate 3 days (8/29 through 8/31) Shut well in for additional build-up. Tried to return to production, had to rebuild pumping unit. Well returned to production @ 2:00 p.m. on October 24, 1995. Production rate (23 hrs) 20.9 BO, .75 BW, 0 MCF.

State of Utah CC: Navajo Nation - Minerals Dept. BIA - Gallup, NM

14. Thereby certify that the edgeoing is true and correct Signed Out a Willy	Title Production Administrator	Date 10-30-95
(This space for rederal or State office use)  Approved by Conditions of approval, if any:	Title	Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-5 (June 1990)

#### UNITED STATES DEPARTMENT OF THE INTERIO BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

Designation and Serial No.

8308-1033

SUNDRY NOTICES AND REPORTS ON WELLS use this form for proposals to drill or to deepen or reentry to a dine

Water Shut-Off

Dispose Water

Conversion to Injection

(Note: Report results of multiple completion on Well

Use "APPLICATION FOR	PERMIT—" for such Wook OL, GAS & MI	NING Navajo
	IN TRIPLICATE	If Unit or CA, Agreement Designation
1. Type of Well    X Oil   Gas   Other     2 Name of Operator     Harken Southwest Corporation     3 Address and Telephone No.   P.O. Box 612007, Dallas, Texas     4 Location of Well (Footage, Sec., T., R., M., or Survey Doing 10-405-24E     Sec. 10-405-24E	escription)	N/A  8. Well Name and No.  Navajo Tribal 14-10  9. API Well No.  43-037-30977  10. Field and Pool, or Exploratory Area  Aneth  11. County or Parish, State  San Juan, UT
CHECK APPROPRIATE BOX(	s) TO INDICATE NATURE OF NOTICE, RE	PORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACT	
Notice of Intent	Abandonment  X Recompletion	Change of Plans  New Construction  Non-Routine Fracturing
	Diversing Back	L_I Non-Routine Fracturing

Completion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Plugging Back

Casing Repair

The following work was performed between 08/02/95 and 08/11/95 in accordance w/procedures filed in July, 1995. Perforated Lower Ismay 5576-82' (6'), 4" gun, 2 JSPF, 180° phasing. Acidized w/600 gal 15% HCL + additives. Inj rate of 2.5 BPM, 1900-2065 psi w/250 gal; inj rate 3 BPM, 2300-2400 psi w/350 gal. Swab well back & rec load. Swabbed Desert Creek (5620-28') and Lower Ismay (5576-82') together. Run pump and production string. Shut well in. Test production rate 3 days (8/29 through 8/31) Shut well in for additional build-up. Tried to return to production, had to rebuild pumping unit. Well returned to production @ 2:00 p.m. on October 24, 1995. Production rate (23 hrs) 20.9 BO, .75 BW, 0 MCF.

State of Utah CC: Navajo Nation - Minerals Dept. BIA - Gallup, NM

Subsequent Report

Final Abandonment Notice

14. there's certify that the foregoing is true and correct Signed  Outgowless	Title Production Administrator	Date 10-30-95
(This space for Rederal or Size office use)  Approved by Conditions of approval, if any:	Title	Date Ha Crest

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## STATE OF UTAH DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801

## MONTHLY OIL AND GAS PRODUCTION REPORT

OPE	ERATOR NAM	IE AND ADDRES	us.							
Susan Herrera						COUNT NU	IMBER:	N9290		
("""	C/O HOLCOM	B OIL AND GAS,			REPORT I	PERIOD (MO	ONTH/YEAR):	02/	2001	
	PO BOX 2058 FARMINGTON	N, NM 87499-2058	3		AMENDE	D REPORT		(Highlight Change	s)	
WELL NAME			Producing	Well	Well	Days	P	roduction Volume	es	
API Number	Entity	Location	Zone	Status	Туре	Oper	OIL (BBL)	GAS (MCF)	WATER (BBL)	
NAVAJO TRIB	AL 23-13	·¹			1				(/	
4303730971	09420	40S 24E 13	DSCR	P	ow	28	1,071	551	2,296	
NAVAJO TRIB	AL 41-2								-,=>0	
4303731041	09437	42S 24E 02	DSCR	P	ow	19	174	23	0	
NAVAJO TRIB									· · · · · ·	
4303731060	09990	40S 22E 26	DSCR	P	ow	8	104	291	0	
NAVAJO TRIB		+08 ZZE ZO	DOCK				104	271	0	
4303730977	10130	40S 24E 05	DSCR	P	ow	28	93	0	0	
SAHGZIE 1	10130	403 246 03	DSCR	1	- OW	20		- 0	0	
	11032	429 24E 05	DCCD	P	ow	28	1.025	4776		
4303731472	11032	42S 24E 05	DSCR	P	l Ow	20	1,025	476	0	
ANASAZI 1	11040	400.045.05	Dacan		0111		1 200	1 2 4 0		
4303731478	11042	42S 24E 05	DSCR	P	ow	28	1,308	1,349	0	
CAJON MESA				_						
4303731497	11074	40S 25E 08	DSCR	P	ow	27	245	355	61	
MONUMENT 8										
4303731509	11087	40S 25E 08	DSCR	P	OW	28	239	496	0	
RUNWAY 10G	-1								1	
4303731515	11105	40S 25E 10	DSCR	S	OW	28	1,412	1,613	432	
RUNWAY 10E	-2									
4303731550	11128	40S 25E 10	DSCR	S	GW	27	279	917	0	
MONUMENT 1	7E-2									
4303731547	11139	40S 25E 17	DSCR	S	ow	26	157	548	0	
LONE MOUNT	AIN CREEK	12F-1								
4303731545	11148	42S 24E 12	DSCR	P	ow	22	149	533	12	
RUNWAY 10C	-5A									
4303731597	11152	40S 25E 10	DSCR	P	ow	24	221	899	40	
					7	TOTALS	6477	8051	2841	
COMME	ENTS:									
I hereby certify t	hat this report	t is true and comp	plete to the bes	t of my kn	owledge.	Date: _		April 13, 2001		
Signature _	Sint	W.M. Lhan Susan I	M. Herrera			T (lep)	one Namber	(505) 3	26-0550	

APR 17 2001

# STATE OF UTAH DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801

	N	<b>MONTHL</b>	Y OIL A	ND G	AS PR	ODUC	TION RE	PORT		
OPI	ERATOR NAN	ME AND ADDRE	ss							
Susan Herrera RIM SOUTHWEST CORPORATION						CCOUNT NU	JMBER:	N9290		
	C/O HOLCOM	IB OIL AND GAS			REPORT	PERIOD (M	ONTH/YEAR):	02/	2001	
PO BOX 2058 FARMINGTON, NM 87499-2058				AMENDE	ED REPORT		(Highlight Change	es)		
WELL NAME	<del></del>		Producing	Well	Well	Days		D		
API Number	Entity	Location	Zone	Status	Туре	Oper		Production Volume		
BLUE HOGAN		Doutlon	Zone	Status	Турс	Oper	OIL (BBL)	GAS (MCF)	WATER (BBL)	
4303731562	11161	42S 23E 01	DSCR	P	ow	27	900	770		
ANASAZI 5L-3			DBCK	1	- OW	21	800	778	36	
4303731572	11207	42S 24E 05	DSCR	P	ow	28	1 107			
BROWN HOGA		120 212 03	DOCK	1	- OW	20	1,187	1,284	0	
4303731573	11215	42S 23E 01	DSCR	P	OW	20	207			
STERLING 36L		425 25E 01	DSCR	Р	OW	28	297	504	0	
4303731595	11224	41S 23E 36	DSCR	S	0111					
MULE 31K (N)	11224	413 23E 30	DSCR	5	ow	0	0	0	0	
4303731617	11326	41S 24E 31	DOCD	<b>D</b>	0111	• •				
NORTH HERON		413 24E 31	DSCR	P	ow	28	308	348	73	
4303731616	11479	410 250 25	DOOD							
BURRO 311	114/9	41S 25E 35	DSCR	<u> </u>	ow	0	0	0	0	
4303731708	11406	410.047.04		_		1				
JACK 31G	11496	41S 24E 31	DSCR	P	ow	28	489	0	0	
4303731709	11407	410.045.01		_						
4303731709 MULE 31M	11497	41S 24E 31	DSCR	S	OW	0	0	0	0	
	11400	445.047.04				ĺ				
4303731710 BIG SKY 6E (6L	11498	41S 24E 31	DSCR	P	ow	28	1,074	333	120	
4303731714	•	400 047 04		_						
	11722	42S 25E 06	DSCR	P	ow	26	262	551	0	
CLAY HILL CA			1		ĺ					
4303731741	11734	41S 25E 32	DSCR	TA	NA	0	0	0	0	
ANASAZI 6H-1	11772	100 0 17 0 5		l						
4303731744	11773	42S 24E 06	DSCR	P	OW	28	205	303	0	
					T	ار میر در		l i		
					1	OTALS	4622	4101	229	
COMMEN	NTS:									
hereby certify tha	at this report i	is true and compl	ete to the best	of my knov	vledge.	Date:		April 13, 2001		
lianotus-		and Al Il	4 4 4 : 4		E	بالعوا فاعتمل يهاوف	- 6" - N & V & " "	· 🔻		
Signature	M	AN M. HER Susan M	A <i>VANA</i> I. Herrera			Telepho	ne Number	(505) 32	6-0550	

APP 1 7 2001

DIVISION OF OIL. GAS AND MINING

	STATE OF UTAH DEPARTMENT OF NATURAL RESOU		<u> </u>		FORM 9
			DESIGNATION AND SERIAL NUMBER:		
SUNDRY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
				Navaj	CA AGREEMENT NAME:
drill horizontal la	new wells, significantly deepen existing wells below cu aterals. Use APPLICATION FOR PERMIT TO DRILL	rrent bottom-hole dep form for such propose	th, reenter plugged wells, or to als.	SEE A	ATTCHED
1. TYPE OF WELL OIL WELL	GAS WELL OTHER	SEE ATTAC	HED		NAME and NUMBER: NTTACHED
2. NAME OF OPERATOR: RIM Southwest Corpora	ation			9. API NU SEE A	MBER: ATTACH
3. ADDRESS OF OPERATOR: P.O. Box 145	γ Farmington STATE NM ZIF	87499	PHONE NUMBER: (505) 327-5531		AND POOL, OR WILDCAT: er Aneth
4. LOCATION OF WELL	Y Tarrington STATE TO ZIE	,07400	(000) 027-0001	Lorda	or 7 mour
FOOTAGES AT SURFACE: SEE A	ATTACHED			COUNTY:	San Juan
QTR/QTR, SECTION, TOWNSHIP, RAN	IGE, MERIDIAN:			STATE:	UTAH
11. CHECK APPE	ROPRIATE BOXES TO INDICAT	ΓΕ NATURE	OF NOTICE, REPO	RT, OR	OTHER DATA
TYPE OF SUBMISSION			YPE OF ACTION		
NOTICE OF INTENT	ACIDIZE	DEEPEN		R	EPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING	FRACTURE			DETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR	☐ NEW CONS			EMPORARILY ABANDON
	CHANGE TO PREVIOUS PLANS	OPERATOR			JBING REPAIR
C SUBSEQUENT DEDORT	CHANGE TUBING	PLUG AND		_	ENT OR FLARE
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME	PLUG BACK			ATER DISPOSAL
Date of work completion:	CHANGE WELL STATUS		ON (START/RESUME)		ATER SHUT-OFF
	COMMINGLE PRODUCING FORMATIONS		ION OF WELL SITE	<b>1</b> 0	THER: Corporate Name Change
	CONVERT WELL TYPE	RECOMPLE	TE - DIFFERENT FORMATION		
	OMPLETED OPERATIONS. Clearly show all r				ive December 1, 2000 for
					CANVED  WISHINGS AND MINING
NAME (PLEASE PRINT), W.J. HOICE	omb	TITL	Vice President		

DATE 4/23/2001

(This space for State use only)

SIGNATURE

#### **OPERATOR CHANGE WORKSHEET**

ROUTING

1. GLH

2. CDW

3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

## X Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:					12/1/2000				
FROM: (Old Operator):				<b>TO:</b> ( New C	perator):				
N9290-Harken Southwest Corporation				N1715-Rim Southwest Corporation					
5 Inverness Drive, East				PO Bo		•			
Denver, CO 80112				Farmii	ngton, NM	87499		,	
, in the second									
Phone: (303) 799-9828				Phone:	(505) 327	-5531			
	CA No.			Unit:					
WELL(S)									
NAME	SEC	TWN	RNG	API NO	ENTITY	LEASE	WELL	WELL	
					NO	TYPE	TYPE	STATUS	
	1								
NAVAJO TRIBAL 32-26	26	400S	1	4303731060	9990	Indian	ow	S	
NAVAJO TRIBAL 14-10	10			4303730977	10130	Indian	ow	P	
NAVAJO TRIBAL 23-13	13	400S		4303730971	9420	Indian	OW	P	
CAJON MESA 8D-1	08	400S		4303731497	11074	Indian	OW	P	
MONUMENT 8N-2	08	400S		4303731509	11087	Indian	OW	P	
RUNWAY 10G-1	10			4303731515	11105	Indian	OW	P	
RUNWAY 10E-2	10			4303731550	11128	Indian	GW	P	
RUNWAY 10C-5A	10			4303731597	11152	Indian	OW	P	
MONUMENT 17E-2	17	1		4303731547	11139	Indian	OW	P	
STERLING 36L-1	36			4303731595	11224	Indian	ow	S	
MULE 31K (N)	31			4303731617	11326	Indian	ow	P	
BURRO 311	31	<del></del>	<del></del>	4303731708	11496	Indian	ow	Р	
MULE 31M	31	<del></del>		4303731710	11498	Indian	ow	P	
JACK 31G	31		1	4303731709	11497	Indian	ow	S	
CLAY HILL CANYON 32D	32	1		4303731741	11734	Indian	ow	TA	
NORTH HERON 35C	35		250E	4303731616	11479	Indian	ow	S	
BLUE HOGAN 1J-1	01			4303731562	11161	Indian	ow	P	
BROWN HOGAN 1A-2	01			4303731573	11215	Indian	ow	P	
NAVAJO TRIBAL 41-2	02			4303731041	9437	Indian	ow	P	
SAHGZIE I	05		1	4303731472	11032	Indian	ow	P	
ANASAZI 1	05	420S	<del></del>	4303731478	11042	Indian	ow	P	
ANASAZI 5L-3	05	420S	·	4303731572	11207	Indian	OW	P	
ANASAZI 6H-1	06	420S		4303731744	11773	Indian	OW	P	
LONE MOUNTAIN CREEK 12F-1	12	420S	<del> </del>	4303731545	11148	Indian	ow	P	
BIG SKY 6E (6L) 1	06	420S	250E	4303731714	11722	Indian	ow	Р	

#### **OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the FORMER operator on:

4/27/2001

2. (R649-8-10) Sundry or legal documentation was received from the NEW operator on:

4/27/2001

3. The new company was checked on the Department of Commerce, Division of Corporations Database on:

**6/30/2**003

4.	Is the new operator registered in the State of Utah:	YES Business Num	iber:	79 <b>.0466-01</b> 43
5.	If NO, the operator was contacted contacted on:			
6. (	R649-9-2)Waste Management Plan has been received on:	8/13/2003		
7.	Federal and Indian Lease Wells: The BLM and or the BIA	has approved the	merger, r	name change,
	or operator change for all wells listed on Federal or Indian leases on:	not given	•	
8.	Federal and Indian Units:			
	The BLM or BIA has approved the successor of unit operator for wel	Is listed on:	n/a	-
9.	Federal and Indian Communization Agreements ("CA"	•		
	The BLM or BIA has approved the operator for all wells listed within	a CA on:	n/a	_
10	. Underground Injection Control ("UIC") The Division	has approved UIC Fo	orm 5, <b>Tra</b>	nsfer of Authority to Inject,
	for the enhanced/secondary recovery unit/project for the water disposal	l well(s) listed on:		n/a
$\overline{\mathbf{D}}$	TA ENTRY:		····	
1.	Changes entered in the Oil and Gas Database on:	8/26/2003		
2.	Changes have been entered on the Monthly Operator Change Spread	Sheet on:	8/26/2003	<u>.</u>
3.	Bond information entered in RBDMS on:	n/a		
4.	Fee wells attached to bond in RBDMS on:	n/a		
ST	ATE WELL(S) BOND VERIFICATION:			
1.	State well(s) covered by Bond Number:	n/a		
FE	DERAL WELL(S) BOND VERIFICATION:			
1.	Federal well(s) covered by Bond Number:	n/a		
IN	DIAN WELL(S) BOND VERIFICATION:			
1.	Indian well(s) covered by Bond Number:	RLB0001937		
FE	E WELL(S) BOND VERIFICATION:	·		
1.	(R649-3-1) The NEW operator of any fee well(s) listed covered by Bon	nd Number	n/a	-
	The FORMER operator has requested a release of liability from their bo	nd on:	n/a	_
•	The Division sent response by letter on:	n/a		
LE	ASE INTEREST OWNER NOTIFICATION:			
	(R649-2-10) The <b>FORMER</b> operator of the fee wells has been contacted of their responsibility to notify all interest owners of this change on:	l and informed by a le n/a	tter from t	he Division
co	MMENTS:			
Bed	cause this was a merger, all LA and PA wells belong to Rim South		r, they are	still on our
cor	nputer as Harken Southwest because no list was provided to move	e inem.		
_				

r

Form 3160-5 (June 1990)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

Lease Designanon and Serial No.

	· · · · · · · · · · · · · · · · · · ·	See Attached
SUNDRY NOTICE:	S AND REPORTS ON WELLS	6 If Indian Alleman on Talba Nama
Use "APPLICATION FO	drill or to deepen or reentry to a different reservoir. OR PERMIT—" for such proposals	
		Navajo Nation
i. Type of Well	T IN TRIPLICATE	7. If Unit or CA, Agreement Designation
Oil Gas Well Other  2. Name of Operator		8. Well Name and No.
RIM SOUTHWEST CORPORATIO  3. Address and Telephone No.	N .	9. API Well No.
P. O. Box 145, Farmingto	n, NM 87499 (505)327-5531	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey i	Description)	
		11. County or Parish, State
		San Juan County Utah
	(s) TO INDICATE NATURE OF NOTICE, REPOF	RT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	Abendonment	Change of Plans
Subsequent Report	Recompletion	New Construction
and opposite report	Casing Receir	Non-Routine Fracturing Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	X Other Vent/Flare Gas	Dispose Water
1 December December 1		(Note: Report results of multiple completion on We Completion or Recompletion Report and Log form
Please be advised that R to vent gas until Septem	I pertinent details, and give pertinent dates, including estimated date of starting all depths for all markers and zones pertinent to this work.)*  IM Southwest Corporation is required ber 14, 2001. After September 14 gas until the Aneth Plant is back	esting approval 4, we request
Attachment  Accepted by the  Utah Division of	cc: State of Utah Navajo Nation-I Navajo Nation I BIA - Gallup, I	BPA - Air Quality
Oil, Gas and Mining	Federal Approval Of This	
Date: 9/17/01	Action Is Necessary	
By: Wellend	COPY SENT TO OPERATOR	7 7 7 1 2001
GKT- Oct-15, 2001	Date: 9-17-61	DMUICH OF LOUIDED BLIZMA
4. I hereby certify that the foregoing is true and correct	The second secon	
Signed What	Title W. J. Holcomb, Vice Pres	ident 8/29/01
(This space for Federal or State office use)		•
Approved by	This	Dete

## RIM SOUTHWEST CORPORATION

			ESTIMATED GAS	7
			VENTED	1
LEASE NUMBER	WELL NAME	SEC-TWN-RNG	MCF/DAY	]
1420603373	Big Sky 6E (6L)	06-42S-25E	19	- 43-031-319
NOC 14205297				_
(NMNM 5756)	Monument 8N-2	08-40S-25E	18	-43-037-3150
(NMNM 5757)	Cajon Mesa 8D-1	08-40S-25E	0	-43-037-3149
NOG 8308-1033	Navajo Tribal 23-13	13-40S-24E	23	-43-031-3697
	WHITE HEALT POR	10-40S-24E	Ellericin Procession	43-037-30177
	Navajo Tribal 41-2	02-42S-24E	8	143-037-31041
	Navajo Tribal 32-26	26-40S-22E	8	43-037-31060
NOG 8707-1162	Sahgzie #1	05-42S-24E	16	43-037-31492
	Anasazi #1	05-42S-24E	67	-43-037-31478
NOG 8707-1170	Runway 10G-1	10-40S-25E	SI	43-039-31515
	Runway 10C-5A	10-40S-25E	SI	43-037-31597
NOG 8707-1190	Runway 10E-2	10-40S-25E	17	43-039-31550
NOG 8707-1191	Monument 17E-2	17-40S-25e	0 .	-43-037-31549
NOG 8707-1206	Blue Hogan 1J-1	01-42S-23E	27	43-037-3/562
	Brown Hogan 1A-2	01-42S-23E	18 .	43-037-31573
NOG 8707-12321	Burro 31-1	31-41S-24E	1	43-037-31708
	Jack 31G	31-41S-24E	SI	412-037-31709
	Mule 31K (N)	31-41S-24E	7	143-037-31617
	Mule 31M	31-41S-24E	24	43-037-31710
		TOTAL AVERAGE	254	1



ANALYSIS NO.

HSC80013

CUST. NO.

). 33500- 10095

## **WELL/LEASE INFORMATION**

CUSTOMER NAME HARKEN SOUTHWEST CORP.

WELL NAME
COUNTY/STATE

MULE 31M

SAN JUAN ANETH

202E412018

UT

SOURCE PRESSURE N/A

Υ

SAMPLE TEMP

25 PSIG 76 DEG.F

WELL FLOWING

DATE SAMPLED SAMPLED BY

6/30/98

MPLED BY FO

FGM

FOREMAN/ENGR.

STEVEN J. MANSUR

#### REMARKS

LOCATION

**FORMATION** 

CUST.STN.NO.

FIELD

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	1.332	0.0000	0.00	0.0129
CO2	0.112	0.0000	0.00	0.0017
METHANE	57.114	0.0000	578.17	0.3164
ETHANE	19.739	5.2802	350.11	0.2049
PROPANE	11.863	3.2694	299.17	0.1806
I-BUTANE	1.498	0.4900	48.83	0.0301
N-BUTANE	4.080	1.2864	133.41	0.0819
I-PENTANE	1.011	0.3699	40.54	0.0252
N-PENTANE	1.215	0.4401	48.82	0.0303
HEXANE PLUS	2.036	0.8883	104.67	0.0655
TOTAL	100.000	12.0243	1,603.72	0.9494

<sup>\* @ 14.730</sup> PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @ 14.730</sup> PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z)	1.0067
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,614.5
BTU/CU.FT (WET) CORRECTED FOR	(1/Z)	1,586.4
REAL SPECIFIC GRAVITY	` ,	0.9559

DRY BTU @ 14.650 DRY BTU @ 14.696	1,605.7 1,610.7	CYLINDER#	SJ99
DRY BTU @ 14.730 DRY BTU @ 15.025	1,614.5 1,646.8	CYLINDER PRESSURE DATE RUN ANALYSIS RUN BY	10 PSIG 7/1/98 DAVE MARTIN



ANALYSIS NO.

HSC80012 33500-10015

CUST. NO.

## **WELL/LEASE INFORMATION**

CUSTOMER NAME HARKEN SOUTHWEST CORP.

UT

WELL NAME

MULE 31K

COUNTY/ STATE LOCATION

SAN JUAN

**ANETH** 

FIELD

FORMATION CUST.STN.NO.

DESERT CREEK 202E340052

SOURCE

PRESSURE

SAMPLE TEMP

**WELL FLOWING** 

DATE SAMPLED SAMPLED BY

FOREMAN/ENGR.

N/A

24 PSIG

84 DEG.F

6/30/98

**FGM** 

STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	1.925	0.0000	0.00	0.0186
CO2	0.133	0.0000	0.00	
METHANE	63.617	0.0000	-·	0.0020
ETHANE	16.771	4.4862	643.99 297.47	0.3524
PROPANE	9.543	2.6301	240.66	0.1741 0.1453
I-BUTANE	1.205	0.3942	39.28	0.0242
N-BUTANE	3.315	1.0452	108.39	0.0665
I-PENTANE	0.794	0.2905	31.84	0.0198
N-PENTANE	0.944	0.3419	37.93	0.0235
HEXANE PLUS	1.753	0.7648	90.12	0.0564
TOTAL	100.000	9.9529	1,489.68	0.8829

<sup>\* @</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z)	1.0056
BTU/CU.FT (DRY) CORRECTED FOR (1/Z)	1,498.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z)	1,472.0
REAL SPECIFIC GRAVITY	0.8877

	DRY BTU @ 14.650 DRY BTU @ 14.696 DRY BTU @ 14.730 DRY BTU @ 15.025	1,489.9 1,494.6 1,498.0 1,528.0	CYLINDER # CYLINDER PRESSURE DATE RUN ANALYSIS RUN BY	048A 24 PSIG 7/1/98 CHELLE DURBIN
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ANALYSIS NO. HSC80009

CUST. NO. 33500-10080

## **WELL/LEASE INFORMATION**

UT

CUSTOMER NAME HARKEN SOUTHWEST CORP.

WELL NAME COUNTY/STATE JACK 31G

SAN JUAN

**ANETH** 

LOCATION FIELD **FORMATION** 

CUST.STN.NO.

202E410005

SOURCE

PRESSURE

N/A

28 PSIG 76 DEG.F

SAMPLE TEMP **WELL FLOWING** 

DATE SAMPLED SAMPLED BY

6/30/98 FGM

FOREMAN/ENGR.

STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	1.975	0.0000	0.00	0.0191
CO2	0.062	0.0000	0.00	
METHANE	70.488	0.0000	713.55	0.0009 0.3904
ETHANE	13.388	3.5813	237.46	
PROPANE	7.057	1.9449	177.97	0.1390 0.1075
I-BUTANE	1.012	0.3310	32.99	0.0203
N-BUTANE	2.613	0.8239	85.44	0.0524
I-PENTANE	0.750	0.2744	30.08	0.0187
N-PENTANE	0.920	0.3332	36.97	0.0229
HEXANE PLUS	1.735	0.7570	89.20	0.0558
TOTAL	100.000	8.0458	1,403.66	0.8271

<sup>• @</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>14.730</sup> PSIA & 60 DEG. F. \*\* Q

COMPRESSIBLITY FACTOR (1/Z)	1.0049
BTU/CU.FT (DRY) CORRECTED FOR (1/Z)	1,410.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z)	1,386.0
REAL SPECIFIC GRAVITY	0.8311

DRY BTU @ 14.650	1,402.9	CYLINDER # CYLINDER PRESSURE DATE RUN ANALYSIS RUN BY	004
DRY BTU @ 14.696	1,407.3		12 PSIG
DRY BTU @ 14.730	1,410.5		7/1/98
DRY BTU @ 15.025	1,438.8		DAVE MARTIN



ANALYSIS NO.

HSC00018

CUST. NO.

33500-10035

## **WELL/LEASE INFORMATION**

CUSTOMER NAME HARKEN SOUTHWEST CORP.

UT

WELL NAME

BIG SKY 6E

COUNTY/ STATE

SAN JUAN

**ANETH** 

LOCATION **FIELD** 

**FORMATION** 

CUST.STN.NO.

202E430640

SOURCE

**PRESSURE** 

17 PSIG

21 DEG.F

SAMPLE TEMP **WELL FLOWING** 

DATE SAMPLED

12/23/00 **FGM** 

Υ

N/A

SAMPLED BY FOREMAN/ENGR.

STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	1.658	0.0000	0.00	0.0160
CO2	0.037	0.0000	0.00	0.0006
METHANE	66.226	0.0000	670.41	0.3668
ETHANE	17.222	4.6069	305.47	0.1788
PROPANE	9.526	2.6254	240.24	0.1450
I-BUTANE	1.012	0.3310	32.99	0.0203
N-BUTANE	2.724	0.8589	89.07	0.0547
I-PENTANE	0.496	0.1815	19.89	0.0124
N-PENTANE	0.553	0.2003	22.22	0.0138
HEXANE PLUS	0.546	0.2382	28.07	0.0176
TOTAL	100.000	9.0422	1,408.36	0.8260

<sup>14.730</sup> PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY \* @

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z)	1.0048
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,415.4
BTU/CU.FT (WET) CORRECTED FOR		1,390.8
REAL SPECIFIC GRAVITY	. ,	0.8302

DRY BTU @ 14.650 1,407.7 DRY BTU @ 14.696 1,412.2		CYLINDER # CYLINDER PRESSURE	007 17	PSIG
DRY BTU @ 14.730	1,415.4	DATE RUN	12/28/	/00
DRY BTU @ 15.025	1,443.8	ANALYSIS RUN BY	GINA	HANON

COM, INCON-SITE GAS ANALYSIS 1427 W. AZTEC BLVD. #3

AZTEC, NM 87410 505-333-2003 ·

Source: ELKHORN FIELD SERVICES

Report Date: 06/19/2001 13:48:14

Station #: 78-153
Station Name: BLUE/BROWN HOGAN

Sample Date: 06/13/2001 Flowing Pressure: 0 psig

Field: RIM SOUTHWEST

Flowing Temp.: 0

Method: c:\mti\ezchrom\200\methods\H2S\_1.MET File: c:\mti\ezchrom\200\chrom\78\_15306.2

## Gas Analysis by Chromatograph

Name	Mole %	BTU	RD	GPM
Nitrogen Methane CO2 Ethane H2S (APPROX) Propane i-Butane n-Butane i-Pentane n-Pentane Hexanes Heptanes Octanes Nonanes	3.577 55.640 0.033 17.739 0.000 11.983 1.627 4.370 1.194 1.465 1.955 0.373 0.044 0.000	0.000 563.264 0.000 314.636 0.000 302.202 53.031 142.892 47.881 58.866 93.193 20.572 2.756 0.000	0.035 0.308 0.001 0.184 0.000 0.182 0.033 0.088 0.030 0.036 0.058 0.013 0.002	4.744 3.302 0.532 1.378 0.437 0.531 0.804 0.172 0.023
Ideal Total Unnormalized Total	100.000 111.244	1599.293	0.969	11.922

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730) Dry = 1610.156Sat. = 1583.743 Actual = 1610.156 0.000 lbs. water/MMCF)

Gasoline Content Propane GPM = 3.302 Butane GPM = 1.910 Gasoline GPM = 1.966 26# Gasoline GPM = 3.344 Total GPM = 11.922

Real Relative Density Calculated = 0.9755 On-Site Relative Density = 0.0000

Gas Compressibility = 0.9933



ANALYSIS NO.

HSC00010

CUST. NO.

33500-10090

#### WELL/LEASE INFORMATION

CUSTOMER NAME HARKEN SOUTHWEST CORP.

UT

WELL NAME

LOCATION

MONUMENT 17-E-2

COUNTY/STATE SAN JUAN

**ANETH** 

**FIELD** 

**FORMATION** 

CUST.STN.NO.

202E311659

SOURCE

PRESSURE

N/A

**SAMPLE TEMP** 

20 PSIG 47 DEG.F

**WELL FLOWING** 

DATE SAMPLED SAMPLED BY

12/21/00 **FGM** 

FOREMAN/ENGR.

STEVEN J. MANSUR

#### **REMARKS**

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.958	0.0000	0.00	0.0093
CO2	0.071	0.0000	0.00	0.0011
METHANE	67.968	0.0000	688.04	0.3765
ETHANE	14.933	3.9946	264.87	0.1550
PROPANE	8.159	2.2486	205.76	0.1330
I-BUTANE	0.965	0.3157	31.45	0.0194
N-BUTANE	2.976	0.9383	97.31	0.0597
I-PENTANE	0.754	0.2759	30.24	0.0188
N-PENTANE	1.118	0.4049	44.92	0.0279
HEXANE PLUS	2.098	0.9154	107.86	0.0675
TOTAL	100.000	9.0934	1,470.45	0.8593

<sup>14.730</sup> PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z)	1.0054
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,479.5
BTU/CU.FT (WET) CORRECTED FOR		1,453.8
REAL SPECIFIC GRAVITY	` ,	0.8647

DRY BTU @ 14.696	1,471.5 1,476.1	CYLINDER # CYLINDER PRESSURE	005 22	PSIG
DRY BTU @ 14.730 DRY BTU @ 15.025	1,479.5 1,509.2	DATE RUN ANALYSIS RUN BY	12/22	



ANALYSIS NO.

HSC00014

CUST. NO.

33500-10120

## **WELL/LEASE INFORMATION**

CUSTOMER NAME HARKEN SOUTHWEST CORP.

UT

WELL NAME

**RUNAWAY 10E2** 

COUNTY/ STATE LOCATION

SAN JUAN

ANETH

**FIELD FORMATION** 

CUST.STN.NO.

202E311617

SOURCE

PRESSURE

SAMPLE TEMP **WELL FLOWING** 

DATE SAMPLED SAMPLED BY

FOREMAN/ENGR.

N/A

21 PSIG

60 DEG.F

12/21/00 FGM

STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.534	0.0000	0.00	0.0052
CO2	0.053	0.0000	0.00	0.0002
METHANE	50.326	0.0000	509.45	0.0008
ETHANE	23.092	6.1771	409.58	
PROPANE	14.269	3.9325	359.85	0.2397 0.2173
I-BUTANE	1.588	0.5194	51.76	0.0319
N-BUTANE	4.428	1.3961	144.79	0.0889
I-PENTANE	0.988	0.3615	39.62	0.0246
N-PENTANE	1.348	0.4882	54.17	0.0336
HEXANE PLUS	3.374	1.4721	173.46	0.1086
TOTAL	100.000	14.3471	1,742.68	1.0292

<sup>\* @</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z)	1.0082
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,758.8
BTU/CU.FT (WET) CORRECTED FOR	(1/Z)	1,728.2
REAL SPECIFIC GRAVITY	• •	1.0390

DRY BTU @ 14.650 DRY BTU @ 14.696	1,749.3 1.754.8	CYLINDER#	AZTO:	35
DRY BTU @ 14.730 DRY BTU @ 15.025	1,754.8 1,758.8 1.794.1	CYLINDER PRESSURE DATE RUN	26 12/22	
DICT DTO 62 15.025	1,794.1	ANALYSIS RUN BY	AMY	JUSTICE



ANALYSIS NO.

HSC00013

CUST. NO.

33500- 10115

## **WELL/LEASE INFORMATION**

CUSTOMER NAME HARKEN SOUTHWEST CORP.

UT

WELL NAME

**RUNAWAY 10C 5-A** 

COUNTY/ STATE LOCATION

SAN JUAN **ANETH** 

**FIELD FORMATION** 

CUST.STN.NO.

202E308719

SOURCE

**PRESSURE** 

**SAMPLE TEMP** 

**WELL FLOWING** 

**DATE SAMPLED** SAMPLED BY

FOREMAN/ENGR.

N/A

Υ

9 PSIG

69 DEG.F

12/21/00

**FGM** 

STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.794	0.0000	0.00	0.0077
CO2	0.109	0.0000	0.00	0.0017
METHANE	56.637	0.0000	573.34	
ETHANE	18.737	5.0121	332.34	0.3137
PROPANE	11.185	3.0826	282.07	0.1945 0.1703
I-BUTANE	1.296	0.4239	42.24	0.0260
N-BUTANE	3.814	1.2026	124.71	0.0765
I-PENTANE	1.035	0.3787	41.51	0.0258
N-PENTANE	1.558	0.5643	62.60	0.0388
HEXANE PLUS	4.835	2.1095	248.57	0.1556
TOTAL	100.000	12.7737	1,707.38	1.0106

<sup>\* @</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z)	1.0080
BTU/CU.FT (DRY) CORRECTED FOR	(1/Z)	1,723.7
BTU/CU.FT (WET) CORRECTED FOR (		1,693.7
REAL SPECIFIC GRAVITY	•	1.0203

DRY BTU @ 14.650	1,714.3			
DRY BTU @ 14.696	1,719.7	CYLINDER #	A002	DOLO
DRY BTU @ 14.730	1,723.7	CYLINDER PRESSURE DATE RUN	14	PSIG
DRY BTU @ 15.025	1,758.2	ANALYSIS RUN BY	12/22/( AMY J	USTICE

COM, INC. 1427 W.AZTEC, BLVD. #3 AZTEC, NM 87410 505-333-2003

Source: ELKHORN FIELD SERVICE

Report Date:

06/19/2001 12:58:11

Station #: 78-138
Station Name: RUNWAY 10-G-1

Sample Date: 06/13/2001

Flowing Pressure: 0

psig

Field: RIM SOUTHWEST

Flowing Temp.: 0

F.

Method: c:\mti\ezchrom\200\methods\sour2.met File: c:\mti\ezchrom\200\chrom\78\_13806.1

## Gas Analysis by Chromatograph

Name	Mole %	BTU	RD	GPM
Nitrogen	1.082	0.000	0.010	
Methane	59.728	604.648	0.331	
CO2	0.074	0.000	0.001	
Ethane	18.511	328,328	0.192	4.951
H2S(approx)	0.000	0.000	0.000	
Propane	12,402	312.769	0.189	3.417
i-Butane	1.191	38.820	0.024	0.390
n-Butane	3.539	115,720	0.071	1.116
i-Pentane	0.926	37.134	0.023	0.335
n-Pentane	1.239	49.785	0.031	0.453
Hexanes	0.834	39.756	0.025	0.343
Heptanes	0.424	23.385	0.015	0.196
Octanes	0.050	3.132	0.002	0.026
Ideal Total Unnormalized Total	100.000 92.627	1553.477	0.914	11.227

Total GPM = 11.227

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730) Dry = 1563.024Sat. = 1537.392 Actual = 1563.024 0.000 lbs. water/MMCF)

Gasoline Content Propane GPM - 3.417 Butane GPM = 1.505Gasoline GPM = 1.35326# Casoline CPM = 2.469

Real Relative Density Calculated = 0.9190 On-Site Relative Density = 0.0000

Gas Compressibility = 0.9939

COM, IL ON-SITE GAS ANALYSIS 1427 W. AZTEC BLVD. AZTEC, NM 87410 505-333-2003

Source: ELKHORN FIELD SERVICES

Report Date: 06/19/2001 13:53:04

Station #: 78-148

Station Name: SAGEEZIE/ANASAZI Field: RIM SOUTHWEST

Sample Date: 06/13/2001 Flowing Pressure: 0 psig Flowing Temp.: 0 F

Method: c:\mti\ezchrom\200\methods\H2S\_1.MET

File: c:\mti\ezchrom\200\chrom\78\_14806.1

## Gas Analysis by Chromatograph

Name	Mole %	BTU	RD	<b>GPM</b>
Nitrogen	0.664	0.000	0.006	
Methane	44.440	449.882	0.246	
CO2	0.068	0.000	0.001	
Ethane	23.771	421.625	0.247	6,358
H2S (APPROX)	0.000	0.000	0.000	
Propane	17,469	440.554	0.266	4.814
i-Butane	2.367	77.151	0.048	0.774
n-Butane	5,635	184.256	0.113	1.777
i-Pentane	1.485	59.551	0.037	0.543
n-Pentane	1.729	69.474	0.043	0.626
Hexanes	1.947	92.812	0.058	0.801
Heptanes	0.378	20.848	0.013	0.174
Octanes	0.047	2.944	0.002	0.024
Nonanes	0.000	0.000	0.000	

Ideal Total 100,000 1819,096 1.080

Unnormalized Total 113.650

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730)

Dry = 1835.446Sat. - 1805.263 Actual = 1835.446

( 0.000 lbs. water/MMCF)

Gasoline Content

Propane GPM = 4.814

Butane GPM = 2.551

Gasoline GPM - 2.169

26# Gasoline GPM = 3.945

Total GPM = 15.891

Real Relative Density Calculated = 1.0892 On-Site Relative Density = 0.0000

Gas Compressibility = 0.9911



ANALYSIS NO.

HSC00012

CUST. NO.

33500-10105

#### WELL/LEASE INFORMATION

CUSTOMER NAME HARKEN SOUTHWEST CORP.

UT

WELL NAME

LOCATION

NAVAJO TRIBAL 32-26

COUNTY/ STATE SAN JUAN

**ANETH** 

**FIELD** 

**FORMATION** 

CUST.STN.NO.

202A-52531

SOURCE

**PRESSURE** 

N/A

SAMPLE TEMP

17 PSIG 30 DEG.F

**WELL FLOWING** 

DATE SAMPLED

12/21/00

SAMPLED BY

**FGM** 

FOREMAN/ENGR.

STEVEN J. MANSUR

#### **REMARKS**

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.934	0.0000	0.00	0.0090
CO2	0.050	0.0000	0.00	0.0008
METHANE	71.878	0.0000	727.62	0.3981
ETHANE	15.057	4.0277	267.07	0.1563
PROPANE	6.531	1.7999	164.71	0.0994
I-BUTANE	0.770	0.2519	25.10	0.0155
N-BUTANE	1.958	0.6174	64.02	0.0393
I-PENTANE	0.510	0.1866	20.45	0.0127
N-PENTANE	0.663	0.2401	26.64	0.0165
HEXANE PLUS	1.649	0.7195	84.78	0.0531
TOTAL	100.000	7.8431	1,380.39	0.8007

<sup>\*@</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z)	1.0046
BTU/CU.FT (DRY) CORRECTED FOR (1/Z)	1,387.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z)	1,363.5
REAL SPECIFIC GRAVITY	0.8049

DRY BTU @ 14.650	1,380.1	CVI MIDED #	1251.4	40
DRY BTU @ 14.696	1,384.4	CYLINDER # CYLINDER PRESSURE	KFL1- 23	48 PSIG
DRY BTU @ 14.730	1,387.6	DATE RUN	12/22	
DRY BTU @ 15.025	1,415.4	ANALYSIS RUN BY		JUSTICE

COM, INCON-SITE GAS ANALYSIS 1427 W. AZTEC BLVD.

AZTEC, NM 87410 505-333-2003

ELKHORN FIELD SERVICES

Report Date: 06/19/2001 13:59:32

Station #: 78-145

Sample Date: 06/13/2001

Station Name: NT41-2

Flowing Pressure: 0 psiq

Field: RIM SOUTHWEST

Flowing Temp.: 0 F

Method: c:\mti\ezchrom\200\methods\H2S 1.MET c:\mti\ezchrom\200\chrom\78\_14\overline{5}06.1

#### Gas Analysis by Chromatograph

Name	Mole ∜	UTA	RD	GPM
Nitrogen Methane CO2 Ethane H2S (APPROX) Propane i-Butane n-Butane i-Pentane n-Pentane Hexanes Heptanes Octanes Nonanes	1.152 56.788 0.085 19.719 0.000 12.656 1.519 4.167 1.029 1.297 1.366 0.196 0.026 0.000	0.000 574.886 0.000 349.755 0.000 319.174 49.511 136.255 41.265 52.116 65.116 10.810 1.628 0.000	0.011 0.315 0.001 0.205 0.000 0.193 0.030 0.084 0.026 0.032 0.041 0.007 0.001	5.274 3.487 0.497 1.314 0.377 0.470 0.562 0.090 0.013
Ideal Total Unnormalized Total	100.000 110.907	1600.514	0.945	12.084

Gross BTU/Real Cu. Ft. Gasoline Content (0 60 deg F, 14.730) Propane GPM = 3.487 Dry = 1611.115Butane GPM = 1,811 Sát. = 1594\_691 Gasalina GDM - 1.512 Actual = 1611.115 26# Gasoline GPM = 2.826 0.000 lbs. water/MMCF) Total GPM - 12.084

> Real Relative Density Calculated = 0.9508 On-Site Relative Density = 0.0000

> > Gas Compressibility = 0.9934

COM, IN ON-SITE GAS ANALYSIS 1427 W. AZTEC BLVD. #3 AZTEC, NM 87410 505-333-2003

Source: ELKHORN FIELD SERVICE

Report Date: 06/19/2001 14:32:41

Station #: 78-146

Sample Date: 06/14/2001

Station Name: NT #23-13
Field: RIM SOUTHWEST

Flowing Pressure: 0 psig

Flowing Temp.: 0

Method: c:\mti\ezchrom\200\methods\H2S 1.MET

File: c:\mti\ezchrom\200\chrom\78\_14606.1

#### Gas Analysis by Chromatograph

Name	Mole %	BTU	RD	GPM
Nitrogen	1.159	0.000	0,011	
Methane	56.655	573.539	0.314	
CO2	0,136	0.000	0.002	
Ethane	19.548	346.722	0.203	5.228
H2S (APPROX)	0.000	0.000	0.000	
Propane	12.674	319.628	0.193	3.192
i-Butane	1.537	50.097	0.031	0.503
n-Butane	4.064	132.887	0.082	1.281
i-Pentane	0.965	38.698	0.024	0.353
n-Pentane	1.172	47,093	0.029	0.424
Hexanes	1.532	73.029	0,046	0.630
Heptanes	0.424	23.385	0.015	0.196
Octanes	0.134	8,393	0,005	0.069
Nonanes	0,000	0.000	0.000	

Ideal Total 100.000 1613.471 0.954 12.177 Unnormalized Total 107.575

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730) Dry = 1624.438 Sat. = 1597.782 Actual = 1624.438 ( 0.000 lbs. water/MMCF)

Gasoline Content Propane GPM = 3.492

Butane GPM - 1.784 Gasoline GPM - 1.672

26# Gasoline GPM = 2.953 Total GPM = 12.177

Real Relative Density Calculated = 0.9603 On-Site Relative Density = 0.0000

Gas Compressibility = 0.9932



ANALYSIS NO.

HSC00009

CUST. NO.

33500-10085

#### WELL/LEASE INFORMATION

UT

CUSTOMER NAME HARKEN SOUTHWEST CORP.

MONUMENT 8N2

WELL NAME COUNTY/STATE

SAN JUAN

**ANETH** 

LOCATION **FIELD** 

**FORMATION** 

CUST.STN.NO. 202E311589

SOURCE PRESSURE

SAMPLE TEMP

**WELL FLOWING** 

DATE SAMPLED SAMPLED BY

FOREMAN/ENGR.

N/A

12 PSIG

55 DEG.F

12/21/00

**FGM** STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	1.139	0.0000	0.00	0.0110
CO2	0.064	0.0000	0.00	0.0010
METHANE	60.307	0.0000	610.49	0.3341
ETHANE	15.875	4.2466	281.57	0.1648
PROPANE	11.057	3.0473	278.85	0.1 <del>04</del> 0 0.1 <del>6</del> 84
I-BUTANE	1.628	0.5325	53.06	0.0327
N-BUTANE	5.194	1.6377	169.83	0.1042
I-PENTANE	1.202	0.4398	48.20	0.0299
N-PENTANE	1.620	0.5868	65.09	0.0404
HEXANE PLUS	1.914	0.8351	98.40	0.0616
TOTAL	100.000	11.3257	1,605.49	0.9480

<sup>14.730</sup> PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

COMPRESSIBLITY FACTOR 1.0067 (1/Z)BTU/CU.FT (DRY) CORRECTED FOR (1/Z) 1.617.3 BTU/CU.FT (WET) CORRECTED FOR (1/Z) 1,589.2 **REAL SPECİFIC GRAVITY** 0.9551

. . . . .

DRY BTU @ 14.650 DRY BTU @ 14.696	1,608.5 1,613.6	CYLINDER# CYLINDER PRESSURE	050 15	PSIG
DRY BTU @ 14.730	1,617.3	DATE RUN	12/22/	/00
DRY BTU @ 15.025	1,649.7	ANALYSIS RUN BY	AMY.	JUSTICE

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.



ANALYSIS NO.

HSC00010

CUST. NO.

33500-10090

#### WELL/LEASE INFORMATION

CUSTOMER NAME HARKEN SOUTHWEST CORP.

WELL NAME

MONUMENT 17-E-2

COUNTY/ STATE

SAN JUAN

UT

**ANETH** 

LOCATION FIELD

**FORMATION** 

CUST.STN.NO.

202E311659

SOURCE

PRESSURE

SAMPLE TEMP

**WELL FLOWING** 

N/A

DATE SAMPLED

SAMPLED BY

12/21/00 **FGM** 

20 PSIG

47 DEG.F

FOREMAN/ENGR.

STEVEN J. MANSUR

#### REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.958	0.0000	0.00	0.0093
CO2	0.071	0.0000	0.00	0.0011
METHANE	67.968	0.0000	688.04	0.3765
ETHANE	14.933	3.9946	264.87	0.1550
PROPANE	8.159	2.2486	205.76	0.1330
I-BUTANE	0.965	0.3157	31.45	0.0194
N-BUTANE	2.976	0.9383	97.31	0.0597
I-PENTANE	0.754	0.2759	30.24	0.0188
N-PENTANE	1.118	0.4049	44.92	0.0279
HEXANE PLUS	2.098	0.9154	107.86	0.0675
TOTAL	100.000	9.0934	1,470.45	0.8593

<sup>\* @</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z)	1.0054
BTU/CU.FT (DRY) CORRECTED FOR (1/Z)	1,479.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z)	1,453.8
REAL SPECIFIC GRAVITY	0.8647

DRY BTU @ 14.650 DRY BTU @ 14.696	1,471.5 1,476.1	CYLINDER#	005	
DRY BTU @ 14.730	1,479.5	CYLINDER PRESSURE DATE RUN	22 12/22/0	PSIG 10
DRY BTU @ 15.025	1,509.2	ANALYSIS RUN BY		USTICE



ANALYSIS NO.

HSC00008

CUST. NO.

33500- 10000

#### WELL/LEASE INFORMATION

CUSTOMER NAME HARKEN SOUTHWEST CORP.

WELL NAME

FORMATION

CUST.STN.NO.

LOCATION

**FIELD** 

CAJON 8D1

202E311625

COUNTY/ STATE

SAN JUAN **ANETH** 

**ISMAY** 

UT

SOURCE PRESSURE N/A

**SAMPLE TEMP** 

12 PSIG 42 DEG.F

**WELL FLOWING** 

DATE SAMPLED

12/21/00

SAMPLED BY

**FGM** 

FOREMAN/ENGR.

STEVEN J. MANSUR

REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	0.802	0.0000	0.00	0.0078
CO2	0.070	0.0000	0.00	0.0011
METHANE	58.781	0.0000	595.04	0.3256
ETHANE	18.008	4.8171	319.41	0.1870
PROPANE	12.630	3.4808	318.52	0.1923
I-BUTANE	1.567	0.5126	51.07	0.0314
N-BUTANE	4.747	1.4967	155.22	0.0953
I-PENTANE	0.925	0.3385	37.09	0.0230
N-PENTANE	1.207	0.4372	48.50	0.0301
HEXANE PLUS	1.263	0.5510	64.93	0.0406
TOTAL	100.000	11.6339	1,589.78	0.9341

<sup>\*@</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z)	1.0065
BTU/CU.FT (DRY) CORRECTED FOR (1/Z)	1,600.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z)	1,573.0
REAL SPECIFIC GRAVITY	0.9408

DRY BTU @ 14.650	1,592.1	CYLINDER#	AZTO	A7
DRY BTU @ 14.696	1,597.1	CYLINDER # CYLINDER PRESSURE	15	PSIG
DRY BTU @ 14.730	1,600.8	DATE RUN	12/26	
DRY BTU @ 15.025	1,632.9	ANALYSIS RUN BY		JUSTICE

COM, INCL N-SITE GAS ANALYSIS 1427 W. AZTEC BLVD. #3 AZTEC, NM 87410 505-333-2003

Source: ELKHORN FIELD SERVICE

Report Date: 06/19/2001 14:36:40

Station #: 78-144 Sample Date: 06/14/2001

Station Name: MON/CAJON MESA

Flowing Pressure: 0 psig

Field: RIM SOUTHWEST

Flowing Temp.: 0

F

Method: c:\mti\ezchrom\200\methods\H2S 1.MET File: c:\mti\ezchrom\200\chrom\78\_14406.1

#### Gas Analysis by Chromatograph

Name	Mole %	BTU	RD	GPM
Nitrogen	0.989	0.000	0.010	
Methane	63.867	646.549	0.354	
CO2	0.044	0.000	0.001	
Ethane	15.724	278.896	0.163	4.205
H2S (APPROX)	0.000	0.000	0.000	
Propane	9.810	247,400	0.149	2.703
i-Butane	1.181	38.494	0.024	0.386
n-Butane	3.638	118.957	0.073	1.147
i-Pentane	0.900	36.091	0.022	0.329
n-Pentane	1.247	50.107	0.031	0.452
Hexanes	1,943	92.621	0.058	0.799
Heptanes	0.514	28.348	0.018	0.237
Octanes	0.143	8.957	0.006	0.073
Nonanes	0.000	0.000	0.000	
_, ,				

Ideal Total 100.000 1546.420 0.908 10.332 Unnormalized Total 108.337

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730)

Dry = 1555.948

Sat. = 1530.436Actual = 1555.948

0.000 lbs. water/MMCF)

Gasoline Content

Propane GPM = 2.703Butane CPM = 1.533

Gasoline GPM = 1.890

26# Gasoline GPM = 3.037 Total GPM = 10.332

Real Relative Density Calculated = 0.9133 On-Site Relative Density = 0.0000

Gas Compressibility = 0.9939



ANALYSIS NO.

HSC00018

CUST. NO.

33500-10035

## **WELL/LEASE INFORMATION**

CUSTOMER NAME HARKEN SOUTHWEST CORP.

WELL NAME

BIG SKY 6E

COUNTY/ STATE SAN JUAN

UT

ANETH

LOCATION FIELD

**FORMATION** 

CUST.STN.NO.

202E430640

SOURCE

N/A

**PRESSURE** SAMPLE TEMP 17 PSIG 21 DEG.F

**WELL FLOWING** 

DATE SAMPLED

12/23/00

SAMPLED BY FOREMAN/ENGR. **FGM** STEVEN J. MANSUR

REMARKS

#### **ANALYSIS**

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR *
NITROGEN	1.658	0.0000	0.00	0.0160
CO2	0.037	0.0000	0.00	0.0006
METHANE	66.226	0.0000	670.41	0.3668
ETHANE	17.222	4.6069	305.47	0.1788
PROPANE	9.526	2.6254	240.24	0.1750
I-BUTANE	1.012	0.3310	32.99	0.0203
N-BUTANE	2.724	0.8589	89.07	0.0547
I-PENTANE	0.496	0.1815	19.89	0.0124
N-PENTANE	0.553	0.2003	22.22	0.0138
HEXANE PLUS	0.546	0.2382	28.07	0.0176
TOTAL	100.000	9.0422	1,408.36	0.8260

<sup>\*@</sup> 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

<sup>\*\* @</sup> 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z)	1.0048
BTU/CU.FT (DRY) CORRECTED FOR (1/Z)	1,415.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z)	1,390.8
REAL SPECIFIC GRAVITY	0.8302

DRY BTU @ 14.650 1,407.7  DRY BTU @ 14.696 1,412.2  DRY BTU @ 14.730 1,415.4  DRY BTU @ 15.025 1,443.8	CYLINDER # CYLINDER PRESSURE DATE RUN ANALYSIS RUN BY	007 17 PSIG 12/28/00 GINA HANON
--	--	--

CQM, INC. 1427 W.AZTEC, BLVD. #3 AZTEC, NM 87410 505-333-2003

ELKHORN FIELD SERVICE

Report Date: 06/19/2001 12:14:41

Station #:

78-132

Sample Date: 06/13/2001

Station Name:

HILLSIDE 6-c Big Sky

Flowing Pressure: 0

psig

Field:

RIM SOUTHWEST

Flowing Temp.:

Method: c:\mti\ezchrom\200\methods\sour2.met File: c:\mti\ezchrom\200\chrom\78 13206.1

#### Gas Analysis by Chromatograph

Name	Mole %	BTU	RD	GPM
Nitrogen	1.876	0.000	0,018	
Methane	65.826	666.381	0.365	
CO2	0.039	0.000	0.001	
Ethane	16.765	297.360	0.174	4.484
H2S(approx)	0.000	0.000	0.000	
Propane	9.827	247.829	0.150	2.708
i-Butane	0.865	28.194	0.017	0.283
n-Butane	2.514	82.204	0.050	0.793
i-Pentane	0.633	25.384	0.016	0.229
n-Pentane	0.787	31.623	0.020	0.288
Hexanes	0.689	32.844	0.021	0.283
Heptanes	0.166	9.155	0.006	0.077
Octanes	0.013	0.814	0.001	0.007
Ideal Total	100,000	1421.788	0.837	9.151
Unnormalized Total	94.894	7457.100	0.037	3.131

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730) Dry = 1428.837 Set. = 1405.444

Gasoline Content

Propane GPM = 2.708

Butane GPM = 1.076 Gasoline GPM = 0.884

Actual = 1428.837

26# Gasoline GPM = 1.676

0.000 lbs. water/MMCF)

Total GPM = 9.151

Real Relative Density Calculated = 0.8408 On-Site Relative Density = 0.0000

Gas Compressibility = 0.9951

# Division of Oil, Gas and Mining PHONE CONVERSATION DOCUMENTATION FORM

	e original/copy to:  Well File	□Suspense	Other
•	.) SecTwpRng No.)		
1.	Date of Phone Call: 9/12/	01 Time: 9	; 2O
2.	DOGM Employee (name)	WITH DOUCET (	Initiated Call)
	Name Whyne Townsen of (Company/Organization)	(□Initiated Call) - Phone I BLM	No. <u>(505) 549 6359</u>
3.	Topic of Conversation:Go	as Flaring in Aneth	area - bad western
4.	Dungo Dation, Namio Ep	Wayne has had several m on Maraho minerals Navajo e, US EPA Tokaco, FXXON-Mo	Health and Guman Somices,
	to rebuild once or quen	from Nunio etc. b) Use 20"(	les of pipeline - Row expires ow wasderied [mainchoice]   month Questur oil pipeline [1950's -1096]
	Everyone in agreement to inwriting yet, Redmesq in Letter today to flarp gas cost gas - no royalty due -	teepwells producing - some yes  exeta anothers wented full show  thru Plant (645 will be metere.  - because OUT of control of co	yourds from plant - talks broked any along the complaints from public, nothing the complaints from public, nothing the content plan: EPA sending a). The gas will becomted as an panies (producers). He's and other artor health risks, etc. BLM ted within matter, parobably

## RIM SOUTHWEST CORPORATION

			ESTIMATED GAS	7
			VENTED	1
LEASE NUMBER	WELL NAME	SEC-TWN-RNG	MCF/DAY	1
1420603373	Big Sky 6E (6L)	06-42S-25E	19	43-037-317
NOC 14205297	.,			_
(NMNM 5756)	Monument 8N-2	08-40S-25E	18	43-037-315
(NMNM 5757)	Cajon Mesa 8D-1	08-40S-25E	0	43-037-314
NOG 8308-1033	Navajo Tribal 23-13	13-40S-24E	23	43-037-309
	Navajo Tribal 14-10	10-40S-24E	1	43-037-309
	Navajo Tribal 41-2	02-42S-24E	8	43-037-310
	Navajo Tribal 32-26	26-40S-22E	8	43-037-310
NOG 8707-1162	Sahgzie #1	05-42S-24E	16	43-037-314
	Anasazi #1	05-42S-24E	67	43-037-314
NOG 8707-1170	Runway 10G-1	10-40S-25E	SI ··	43-037-315
	Runway 10C-5A	10-40S-25E	SI	43-037-315
NOG 8707-1190	Runway 10E-2	10-40S-25E	17	43-037-315
NOG 8707-1191	Monument 17E-2	17-40S-25e	0	43-037-315
NOG 8707-1206	Blue Hogan 1J-1	01-42S-23E	27	43-037-315
	Brown Hogan 1A-2	01-42S-23E	18	43-037-315
NOG 8707-12321	Burro 31-1	31-41S-24E	1	43-037-317
	Jack 31G	31-41S-24E	SI	43-037-317
	Mule 31K (N)	31-41S-24E	7	43-037-316
	Mule 31M	31-41S-24E	24	43-037-317
		TOTAL AVERAGE	254	

Form 3160-5 (Augus: 1999)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires November 30, 2000

	BUREAU OF LAND MA					5. Le	ase Seria	No.
SUNDE	RY NOTICES AND REP	PORTS ON	WELLS			S€	e At	tached
DO NOT USE TI abandoned w	his form for proposals ell. Use Form 3160-3 (A	to drill or to	re-ente	r an		6. If 1	ndian, A	llottee or Tribe Name
		ruj idi suci	i propos	aış.		Na	vajo	Nation
SUBMIT IN TR	RIPLICATE - Other ins	tructions o	n revers	se sid	le	7. If t	Jnit or C.	A/Agreement, Name and/or No.
Oil Well Gas Well	7 Others					0 17/-	ll Name	
2. Name of Operator	Other				<del></del> -	-  8. ₩°	ii Name	and No.
RIM SOUTHWEST	CORPORATION					9. AP	I Well N	0.
3a. Address	87499		e No. (inclu		code)			
	Farmington, NM		327-55	331		10. Fie	ld and Po	ol, or Exploratory Area
4. Location of Well (Footage, Sec.	., T., R., M., or Survey Description	on)						· · · · · · · · · · · · · · · · · · ·
						San	Jua	arish, State N County
						ľ	Ut	_
12. CHECK AP	PROPRIATE BOX(ES) T	O INDICAT	TE NATI	IRFO	F NOTICE E	REPORT	OR O	THER DATA
TYPE OF SUBMISSION	TOTAL TELEVISION (ES)	OHOICA				CI OKI,	OK O.	
1 TPE OF SUBMISSION			Т	YPE O	F ACTION	<del></del>	<del></del>	<del> </del>
	Acidize	Д Веереп			Production (Star	nt/Resume)		Water Shut-Off
Notice of Intent	Alter Casing	☐ Fracture	Treat		Reclamation			Well Integrity
K Subsequent Report	Casing Repair	New Co	nstruction		Recomplete			Other Vent/Flare
Final Abandonment Notice	Change Plans		Abandon		Temporarily At	andon		Gas
Final Abandonment Notice	Convert to Injection	Plug Bac	:k	ч	Water Disposal			
Attachment  Date: By: \( \)	ed that RIM Sou inue to vent/f or until the Please referenc	thwest lare ga Aneth p e our p ction t	Corpos from I ant revious hroughtour from I 1/19	ratim this pus shows the control of	on is released to the late of	equest ned we on li otice 5, 200 Stat Nava	ing ells ne, date ol.	additional until whichever
4. I hereby certify that the foregoing Name ( <i>Printed/Typed</i> )  W. J. Holo			Title	/ice	Preside	ent	R	ECEIVED
Signature (1)	Cant (SIH)		Date ]	1/0	1/01			NOV 0 9 2001
	THIS SPACE F	OR FEDERA	L OR ST	ATE (	OFFICE USE	. :	ווכב	DIVISION OF GAS AND MINING
annual bu							Date	
approved by Conditions of approval, if any, are at	tached Approved of this series			16	·		Jell	
ertify that the applicant holds legal which would entitle the applicant to co	or equitable title to those rights	in the subject	leese l	fice				

n 3160-5.

# U"""ED STATES

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	Ы	id	200	
				L

FORM APPROVED

OIL, GAS AND MINING

.gust 1999)	DEPARTM) OF TH					OMB No. 1004-0135 hires November 30, 2000	
BUREAU OF LAND MANAGEMENT  SUNDRY NOTICES AND REPORTS ON WELLS						5. Lease Serial No. See Attached	
Do not use :	this form for propossis	to drill or	to re-enter at	n			
abandoned v	vell. Use Form 3160-3 (A	PD) for su	ch proposals.		1	Allottee or Tribe Name  Nation	
Submit in th	RIPLICATE - Other ins	tructions	on reverse s	eide	7. If Unit or C	A/Agreement, Name and/or No	
1. Type of Well							
Oil Well Gas Well Other					8. Weil Name	and No.	
2. Name of Operator  DIM SOUTHWEST C						· · · · · · · · · · · · · · · · · · ·	
RIM SOUTHWEST CORPORATION  3a. Address 87499 3b. Phone No. (include area code)					9. API Well N	lo.	
P.O. Box 145, F		327-5531		10. Field and Pool, or Exploratory Area			
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)							
•					11. County or F	arish, State	
						ian County Itah	
12 OUTOW AT							
<del></del>	PPROPRIATE BOX(ES)	O INDICA	TE NATURE	OF NOTICE, R	EPORT, OR O	THER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION						
<b>—</b>	Acidize	Deepe	n (	Production (Star	t/Resume)	Water Shut-Off	
Notice of Intent	Alter Casing	☐ Fractu	re Treat	Reclamation		Well Integrity	
Subsequent Report	Casing Repair		Construction [	Recomplete		Other Place Gas	
Final Abandonment Notice	Change Plans		nd Abandon [	Temporarily Ab	andon		
	Convert to Injection	Plug B	ack . L	Water Disposal			
Please be advi 15, 2001 the a the Aneth pipe	sed that as of ttached wells w line/plant.	approx ere pu	imately t back o	3:00 p.m. n line fo	Thursday r gas sal	, November es through	
			cc: s	State of U	tah		
			N N		ion-Miner	als Air Quality	
<ol> <li>I hereby certify that the foregoing Name (Printed/Typed)</li> </ol>	is true and correct		ı	-			
W. J. Hol	comb		Title Vic	e Preside	nt		
Signature (1)	ek			19/01	REGI	=IVED	
	THIS SPACE F	OR FEDER	AL OR STATE	OFFICE USE		me ( V law las	
pproved by			Title		NO.	3 2001	
onditions of approval, if any, are attentify that the applicant holds legal (	ached. Approval of this notice	does not was	rant or		· · · · · · · · · · · · · · · · · · ·	ION OF	
which would entitle the applicant to con	iduct operations thereon.	in the subjec	Office			AND MINING	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## RIM SOUTHWEST CORPORATION

			ESTIMATED GAS	1
			VENTED	
LEASE NUMBER	WELL NAME	SEC-TWN-RNG	MCF/DAY	
	Die Chr. SE (SI )	06-42S-25E	19	43-037-31714
1420603373	Big Sky 6E (6L)	00-120-202		
NOC 14205297	•			42 027 21500
(NMNM 5756)	Monument 8N-2	08-40S-25E	18	43-037-31509
(NMNM 5757)	Cajon Mesa 8D-1	08-40S-25E	0	43-037-31497
NOG 8308-1033	Navajo Tribal 23-13	13-40S-24E	23	43-037-30971
1100 0000 1000	Navajo Tribel 14-10	10-40S-24E	1	43-037-30977
	Navajo Tribal 41-2	02-42S-24E	8	43-037-31041
	Navajo Tribal 32-26	26-40S-22E	8	43-037-31060
NOG 8707-1162	Sahgzie #1	05-42S-24E	16	43-037-31472
1000101102	Anasazi #1	05-42S-24E	67	43-037-31478
NOG 8707-1170	Runway 10G-1	10-40S-25E	SI	43-037-31515
	Runway 10C-5A	10-40S-25E	SI	43-037-31597
NOG 8707-1190	Runway 10E-2	10-40S-25E	17	43-037-31550
NOG 8707-1191	Monument 17E-2	17-40S-25e	0	43-037-31547
NOG 8707-1206	Blue Hogan 1J-1	01-42S-23E	27	43-037-31562
	Brown Hogan 1A-2	01-42S-23E	18	43-037-31573
NOG 8707-12321	Burro 31-1	31-41S-24E	1	43-037-31708
	Jack 31G	31-41S-24E	SI	43-037-31709
	Mule 31K (N)	31-41S-24E	7	43-037-31617
	Mule 31M	31-41S-24E	24	43-037-31710
		TOTAL AVERAGE	254	}

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

NOG-8308-1033	
SUNDRY NOTICES AND REPORTS ON WELLS  6. IF INDIAN, ALLOTTEE OR TRIBE Navajo Nation	NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL OIL WELL  GAS WELL OTHER 8. WELL NAME and NUMBER: Navajo Tribal 14-10	
2. NAME OF OPERATOR:  9. API NUMBER:	<del> </del>
RIM Southwest Corporation 4303730977	
3. ADDRESS OF OPERATOR: PHONE NUMBER: 10. FIELD AND POOL, OR WILDCAT	:
5 Inverness Drive E. CITY Englewood STATE CO ZIP 80112 (303) 799-9828 Greater Aneth	
FOOTAGES AT SURFACE: 250 FSL & 460 FWL COUNTY: San Juan	
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 10 40S 24E STATE:	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	<del></del>
TYPE OF SUBMISSION TYPE OF ACTION	
ACIDIZE DEEPEN REPERFORATE CURRENT	FORMATION
NOTICE OF INTENT (Submit in Duplicate)  ALTER CASING  FRACTURE TREAT  SIDETRACK TO REPAIR WE	ELL
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION TEMPORARILY ABANDON	
☐ CHANGE TO PREVIOUS PLANS	
CHANGE TUBING PLUG AND ABANDON VENT OR FLARE	
✓ SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK WATER DISPOSAL	
(Submit Original Form Only)  CHANGE WELL STATUS  PRODUCTION (START/RESUME)  WATER SHUT-OFF	
Date of work completion:  COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE  OTHER:	
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.	
The Operator on the above oil well has changed effective November 1, 2003:	
Old Operator: RIM Southwest Corporation 5 Inverness Drive East Englewood Colorado, 80112 (303) 799-9828	
New Operator: Navajo Nation Oil & Gas Co., Inc.  Post Office Box 4439  Window Rock, Arizona 86515  (928) 871-4880	
NAME (PLEASE PRINT) Rene' Morin TITLE Vice President	
SIGNATURE DATE 11/1/2003	

(This space for State use only)

**RECEIVED** 

#### **OPERATOR CHANGE WORKSHEET**

ROUTING	
1. GLH	
2. CDW	
3. FILE	

## X Change of Operator (Well Sold)

4. Is the new operator registered in the State of Utah:

5. If NO, the operator was contacted contacted on:

Designation of Agent/Operator

Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:				Name (Addison to 11/1/2003					
FROM: (Old Operator):				<b>TO:</b> ( New O	perator):				
N1715-RIM Southwest Corporation				N2550-Navajo	Nation Oil	& Gas Co.,	Inc.		
5 Inverness Dr. E				PO Bo	x 4439				
Englewood, CO 80112				Windo	w Rock, AZ	86515			
Phone: 1-(303) 799-9828				Phone: 1-(928)	) 871-4880				
CA	No.			Unit:					
WELL(S)									
NAME	SEC	TWN	N RNG	API NO	ENTITY	LEASE	WELL	WELL	
					NO	TYPE	TYPE	STATUS	
NAVAJO TRIBAL 24-13	13		240E	4303730970		Indian	WI	A	
NAVAJO TRIBAL 23-13	13		240E	4303730971		Indian	OW	P	
NAVAJO TRIBAL 14-10	10		240E	4303730977		Indian	OW	P	
NAVAJO TRIBAL 41-2	02	420S	240E	4303731041	9437	Indian	OW	P	
			<u> </u>					<b></b>	
		<del> </del>	<del> </del>		ļ				
		<del> </del>	<u> </u>	<u> </u>	-				
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		1					+		
	L	L	<u> </u>	<u></u>	<u></u>		<u>.i.</u>	L	
OPERATOR CHANGES DOCUM	ENTATI	ION	·					<u>*</u>	
Enter date after each listed item is complet	ted								
1. (R649-8-10) Sundry or legal documentat		eived f	rom the	FORMER ope	erator on:	1/20/2004	ļ		
•				•	•		-		
2. (R649-8-10) Sundry or legal documentat	ion was rec	eived f	rom the	NEW operator	on:	1/20/2004	<u>.</u>		
3. The new company was checked on the <b>Department of Commerce, Division of Corporations Database on:</b> 3/31/2004									

YES Business Number:

3/31/2004

\* called for

6. (R649-9-2) waste Management Plan has been reco	eived on:	- caned for			
<ol> <li>Federal and Indian Lease Wells: The or operator change for all wells listed on Federal</li> </ol>			d the merger, na	ame change, BIA	12/1/2003
8. Federal and Indian Units: The BLM or BIA has approved the successor	of unit operator fo	r wells listed on:	n/a		
<ol> <li>Federal and Indian Communization         The BLM or BIA has approved the operator f     </li> </ol>	•	•	n/a		
<ul> <li>10. Underground Injection Control ("Unject, for the enhanced/secondary recovery unser EPA approval per their jurisdiction and the</li> </ul>	it/project for the wa	ivision has approve ater disposal well(s)		12/12/03*	ority to
DATA ENTRY: 1. Changes entered in the Oil and Gas Database	on:	3/31/2004			
2. Changes have been entered on the Monthly Op	erator Change Sp	oread Sheet on:	3/31/200	<u>14</u>	
3. Bond information entered in RBDMS on:		N/A			
4. Fee wells attached to bond in RBDMS on:		N/A			
5. Injection Projects to new operator in RBDMS of	on:	3/31/2004			
6. Receipt of Acceptance of Drilling Procedures for	or APD/New on:		n/a		
STATE WELL(S) BOND VERIFICATION	ON:				-
1. State well(s) covered by Bond Number:		n/a			
FEDERAL WELL(S) BOND VERIFICATION Federal well(s) covered by Bond Number:	ATION:	n/a			
INDIAN WELL(S) BOND VERIFICAT:  1. Indian well(s) covered by Bond Number:	ION:		06761 and for injection well		
FEE WELL(S) BOND VERIFICATION  1. (R649-3-1) The NEW operator of any fee well(		y Bond Number	n/a	<u>.</u>	
2. The <b>FORMER</b> operator has requested a release The Division sent response by letter on:	of liability from th	eir bond on: N/A	N/A		
LEASE INTEREST OWNER NOTIFIC  3. (R649-2-10) The FORMER operator of the fee of their responsibility to notify all interest owner.	wells has been con		l by a letter from th	ne Division	
COMMENTS: Rim SW lost lease; Navajo Nation Oil & Gas ob	otained lease				

Form 3160-5 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

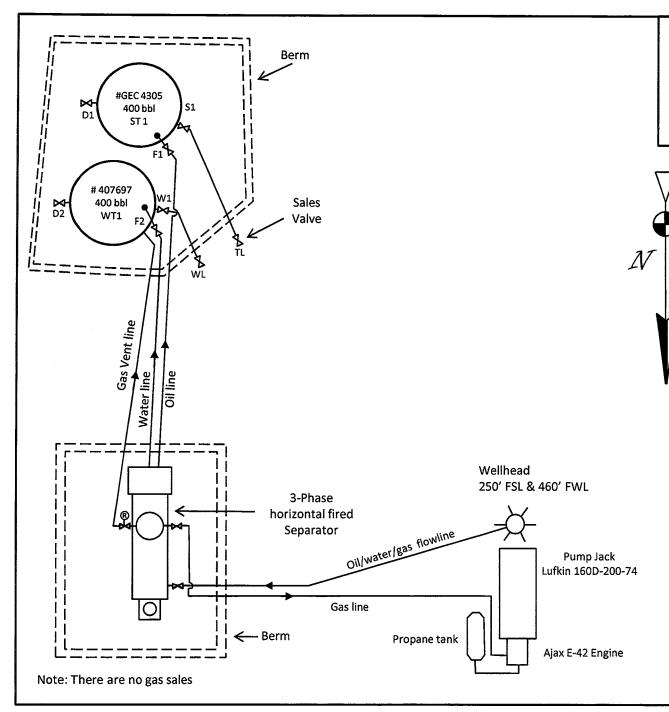
FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

5. Lease Serial No. NOG 8308-1033 6. If Indian, Allottee or Tribe Name

Do not use this	form for proposals to Use Form 3160-3 (AF	6. If Indian, Allottee or Tribe Name Navajo Tribal				
SUBMI	T IN TRIPLICATE - Other i	instructions on pa	ge 2.		7. If Unit of CA/Agree	ement, Name and/or No.
1. Type of Well						
Oil Well Gas V	Well Other				8. Well Name and No. Navajo Tribal 14-10	
2. Name of Operator Navajo Nation Oil & Gas Co.					9. API Well No. 43-037-30977	
3a. Address P.O. Box 4439, Window Rock, AZ 86515		3b. Phone No. <i>(inc</i> (928) 871-4880	lude area code)		10. Field and Pool or I Greater Aneth	Exploratory Area
4. Location of Well <i>(Footage, Sec., T.</i> 250' FSL 460' FWL SW SW, Sec. 10 T40S, R24E	R.,M., or Survey Description)				11. Country or Parish, San Juan, UT	State
12. CHE	CK THE APPROPRIATE BOX	X(ES) TO INDICA	TE NATURE C	F NOTIC	E, REPORT OR OTH	ER DATA
TYPE OF SUBMISSION			ТҮРЕ	OF ACT	ION	
Notice of Intent	Acidize Alter Casing	Deepen Fracture 7	reat [		uction (Start/Resume) umation	Water Shut-Off Well Integrity
✓ Subsequent Report	Casing Repair	New Con	struction		mplete	Other Site Security
Final Abandonment Notice	Change Plans Convert to Injection	Plug and . Plug Back			oorarily Abandon r Disposal	Diagram
Attached is the current site security  CC: State of Whan Dir  Navajo Nation  Blm (4 copies)	,		١			
						RECEIVED
						OCT 0 5 2009
					D	IV. OF OIL, GAS & MINING
14. I hereby certify that the foregoing is	rue and correct. Name (Printed)	(Typed)				
John C. Hatch		Tit	le Operations	Enginee	r - Navajo Nation Oil	& Gas Co.
Signature John (	(alit	Da	te 09/30/2009	)		
	THIS SPACE F	OR FEDERA	L OR STAT	ΓE OFF	ICE USE	
Approved by						
	, \$ = 4 = = = = = 2 = 2 = 2 = 1 = = = = = = = =		Title		1	Date
Conditions of approval, if any, are attache that the applicant holds legal or equitable entitle the applicant to conduct operations	title to those rights in the subject	not warrant or certif	Office			
Title 18 U.S.C. Section 1001 and Title 43	U.S.C. Section 1212 make it a	crime for any person	knowingly and	willfully to	make to any departmen	t or agency of the United States any false

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



### Navajo Nation Oil & Gas Co Tank battery Site Security Diagram

Navajo Tribal Well: 14-10 Lease No.: NOG 8308-1033

Location: SW SW, Sec. 10, T40S-R24E
County: San Juan State: UT

#### **Valve Sealing Status:**

- 1. To fill into tank #GEC 4305 (ST 1)
- a. Valve F1 is open
- b. Valves D1, S1 closed
- c. When tank is full, valve F1 is closed & sealed.
- 2. To sell oil from GEC 4305 (ST 1)
- a. Purchaser (Western Refining)
  breaks seal & opens valve S1 and
  opens unsealed valve TL. After
  tank is emptied, valve S1 is closed
  and sealed. Valve TL is closed.

### Valve Sealing Status:

- 1. Draining Activity
- a. All valves on tank #4305 are closed & sealed.
- b. Drain valve D1 is opened.

# **RECEIVED**

OCT 0 5 2009

## SITE SECURITY PLAN SE UTAH AREA San Juan County, Utah

DIV. OF OIL, GAS & MINING

The following Site Security Plan will be sufficient to comply with the minimum standards outlined in Vol. 54, No. 36Section 221.37 of the Federal Register published February 24, 1989, BLM 43CFR3160, Onshore Oil and Gas Order No. 3, Site Security (Attached).

All appropriate valves on lines entering or leaving oil storage tanks will be effectively sealed during the production phase and during the sales phase. The piping and connections in a closed system which are tamper proof or tamper resistant are essentially protected from unauthorized or undocumented entry, but the piping and connections in an open system will be protected. For a minimum of six (6) years The Navajo Nation Oil and Gas Company will maintain a record of seal numbers used and will document on which valve or connections they were used as well as when they were installed and removed. The site facility diagram(s) show(s) which valves are sealed in which positions during both the producing and sales phase.

Where oil is sold via hand gauged volumes, The Navajo Nation Oil and Gas Company will minimize the time that oil is stored on leases to that time needed to accumulate an economic oil run. The Navajo Nation Oil and Gas Company retains oil needed for use on the lease and to provide for delivery of royalty oil.

The Navajo Nation Oil and Gas Company will deal promptly with any accumulations of oil in pits or tanks in accordance with the provisions of applicable NTL's or onshore orders.

The Navajo Nation Oil and Gas Company, with reasonable frequency (daily), will regularly inspect all leases, units, and communitized areas to determine site security and production volumes. The Navajo Nation Oil and Gas Company will retain records of such inspections and measurements for six (6) years. Such records and measurements will be available to any authorized representative upon request.

All facilities at which oil is stored are clearly identified with a sign that contains the name of the operator, the lease serial number (or communitization or unit agreement identification), section, township, and range. On Indian leases, the sign will also include the name of the appropriate tribe and whether the lease is tribal or allotted. In addition, each storage tank is clearly identified by a unique number. The identification will be maintained in legible condition and is clearly apparent to any person at or approaching the sales or transportation point. With regard to the quarter-quarter designation and the unique tank number, any such designation established by State Law or rule will satisfy this requirement.

Any facility identification which is in existence on the effective date of this rule and which meets the basic information herein will satisfy this paragraph until such sign is replaced.

Any person removing oil from a facility by motor vehicle shall possess identification documentation required by applicable NTL's or onshore orders while the oil is being removed and transported.

Theft or mishandling of oil from Federal or Indian lease will be reported to the authorized officer as soon as discovered but not later that the next business day. Said report shall include an estimate of the volume of oil involved. The Navajo Nation Oil and Gas Company will also report such thefts promptly to local law enforcement agencies and internal company security.

RECEIVED OCT 0 5 2009

DIV. OF OIL, GAS & MINING

# Division of Oil, Gas and Mining OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING
CDW

X - Change of Operator (Well Sold)	Operator Name Change/Merger						
The operator of the well(s) listed below has cha	***		8/1/2010				
FROM: (Old Operator):	TO: (New O	perator):					
N2550- Navajo Oil & Gas Cp.			N3930- NNO	GC Explorat	ion & Production	ı, LLC	
1625 Broadway, Suite 1100			1625 Broadwa	y, Suite 100	0		
Denver, CO 80202			Denver, CO 80	)202			
Phone: 1 (303) 534-8300			Phone: 1 (303)				
CA No.			Unit:	N/A	T	1	
WELL NAME	SEC TV	VN	API NO	ENTITY	LEASE	WELL	WELL
G. Aug lad I in	RNG			NO	TYPE	TYPE	STATUS
See Attached List	<u> </u>		1		<u> </u>		
OPERATOR CHANGES DOCUMENT Enter date after each listed item is completed  1. (R649-8-10) Sundry or legal documentation was 2. (R649-8-10) Sundry or legal documentation was 3. The new company was checked on the Depard 4a. Is the new operator registered in the State of 5a. (R649-9-2) Waste Management Plan has been as 5b. Inspections of LA PA state/fee well sites com 5c. Reports current for Production/Disposition & 6. Federal and Indian Lease Wells: The Boor operator change for all wells listed on Federal 7. Federal and Indian Units:  The BLM or BIA has approved the success 8. Federal and Indian Communization As The BLM or BIA has approved the operator 9. Underground Injection Control ("UIC Inject, for the enhanced/secondary recovery to DATA ENTRY:  1. Changes entered in the Oil and Gas Databas	vas receive vas receive tment of C Utah: received or plete on: Sundries o LM and or eral or India or of unit o greement r for all we ") Division unit/project	d from the Commercent:  on: the BIA an leases perator for the Commercent in the Comm	ne NEW operators, provided the NEW operators, provided the New American Street Street, provided the New American Street, provided the New Amer	or on: Corporation ber: e merger, na BLM n: Corm 5 Tran	8399948-0165  ame change,  8/1/2010  N/A  nsfer of Author	BIA	<u>12/31/2012</u> 
<ol> <li>Changes entered in the Oil and Gas Databas</li> <li>Changes have been entered on the Monthly O</li> </ol>		Change S	12/31/2102 Spread Sheet on	<u>-</u> ::	12/31/2012	_	
3. Bond information entered in RBDMS on:			12/31/2012	_			
4. Fee/State wells attached to bond in RBDMS of			12/31/2012	_			
5. Injection Projects to new operator in RBDMS			12/31/2012	<b>-</b>	_		
6. Receipt of Acceptance of Drilling Procedures	for APD/N	New on:		12/31/2012	<u>2</u>		
BOND VERIFICATION:							
1. Federal well(s) covered by Bond Number:			N/A	_			
2. Indian well(s) covered by Bond Number:			RLB0006712	_			
3a. (R649-3-1) The <b>NEW</b> operator of any state/	fee well(s)	listed co	vered by Bond l	Number	N/A	_	
3b. The <b>FORMER</b> operator has requested a release	se of liabil	lity from	their bond on:	N/A			
LEASE INTEREST OWNER NOTIFIC	CATION	T <b>:</b>			_		
4. (R649-2-10) The <b>NEW</b> operator of the fee wel			ed and informed	by a letter fi	rom the Division		
of their responsibility to notify all interest own				N/A			
COMMENTS:							

## Navajo Nations Oil Gas Co. (N2550) to NNOGC Exploration Production, LLC (N3930) Effective 8/1/2012

			İ				Well	Well
Well Name	Sec	TWP	RNG	API	Entity	Lease	Туре	Status
TOHONADLA 26-OSCAR	26			4303750022			OW	APD
TOHONADLA 35-F	35			4303750024		Indian	OW	APD
TOHONADLA 2-G	02			4303750027		Indian	OW	APD
TOHONADLA 2-B	02			4303750028		Indian	OW	APD
TOHONADLA 1-C	01			4303750029		Indian	OW	APD
TOHONADLA 2-BRAVO	02			4303750030		Indian	ow	APD
TOHONADLA 1-F	01			4303750031		Indian	OW	APD
TOHONADLA 2-H	02			4303750032		Indian	OW	APD
TOHONADLA 1-Delta	01			4303750033		Indian	OW	APD
TOHONADLA 35-INDIGO	35			4303750034		Indian	ow	APD
TOHONADLA 35-J	35			4303750035		Indian	OW	APD
UTE CANYON 25G-O	25			4303731913		Indian	OW	DRL
TOHONADLA 35-B	35			4303750023				DRL
UTE CYN 23-INDIGO	23			4303731880		Indian		LA
TOHONADLA 35-P	35	410S	210E	4303731886		Indian	OW	LA
TOHONADLA 1-E	01	420S	210E	4303731887		Indian	OW	LA
TOHONADLA 1-D	01	420S	210E	4303731888		Indian	OW	LA
TOHONADLA 26-O	26	410S	210E	4303731896		Indian	OW	LA
UTE CYN 23-INDIGO	23	410S	210E	4303731911		Indian	OW	LA
NAVAJO TR 23-1	02	420S	210E	4303715540	6230	Indian	OW	P
DESERT CREEK 2	35	410S	230E	4303715868	6270	Indian	OW	P
TOHONADLA 1	35			4303715872				P
TOHONADLA 23-35	35	410S	210E	4303715874	11202	Indian	OW	P
NAVAJO TRIBAL 23-13	13	400S	240E	4303730971	9420	Indian	OW	P
NAVAJO TRIBAL 14-10	10	400S	240E	4303730977	10130	Indian	OW	P
SAHGZIE 1	05	420S	240E	4303731472	11032	Indian	OW	P
ANASAZI 1	05	420S	240E	4303731478	11042	Indian	OW	P
CAJON MESA 8D-1	08	400S	250E	4303731497	11074	Indian	OW	P
MONUMENT 8N-2	08	400S	250E	4303731509	11087	Indian	OW	P
RUNWAY 10G-1	10	400S	250E	4303731515	11105	Indian	OW	P
LONE MOUNTAIN CREEK 12F-1	12	420S	240E	4303731545	11148	Indian	OW	P
RUNWAY 10E-2	10			4303731550				P
BLUE HOGAN 1J-1	01	420S	230E	4303731562	11161	Indian		P
TOHONADLA 2-35	35	410S	210E	4303731568	11202	Indian	OW	P
ANASAZI 5L-3	05	420S	240E	4303731572	11207	Indian	OW	P
BROWN HOGAN 1A-2	01			4303731573				P
MULE 31K (N)	31			4303731617				P
BURRO 31I	31	410S	240E	4303731708	11496	Indian	OW	P
MULE 31M	31			4303731710			OW	P
ANASAZI 6H-1	06			4303731744			OW	P
TOHONADLA 35-P	35			4303750005			OW	P
TOHONADLA 1-E	01			4303750006				P
NAVAJO TRIBAL 41-2	02			4303731041				PA
MONUMENT 17E-2	17			4303731547				S
RUNWAY 10C-5A	10			4303731597				S
UTE CYN 23-P	23	410S	210E	4303731881	17282	Indian	OW	S

#### NAVAIO NATION OIL & GAS COMPANY

#### **EXPLORATION & PRODUCTION LLC**

1675 Broadway, Suite 1100 • Denver, Colorado • 80202

Telephone (303) 534-8300 • FAX (303) 534-1405



September 18, 2012

Utah Division of Oil, Gas and Mining c/o Rachel Medina 1594 West North Temple, Suite 1210 Salt Lake City, Utah 84114-5801

RECEIVED SEP 1 9 2012

RE: Change of Operator Name and Address for Wells

DIV. OF OIL, GAS & MINING

Dear Rachel.

I am including with this letter several original FORM 9 to change the operator on wells. This probably will be done in two steps.

- 1. (16 wells) Change of Operator from RIM Southwest Corporation to Navajo Nation Oil & Gas Co.
- 2. (Same 16 wells) Change of Operator from Navajo Nation Oil & Gas Co. to NNOGC Exploration and Production, LLC.

We have recently registered our LLC with the State of Utah. The Utah Entity Number for NNOGC Exploration and Production, LLC is: 8399948-0165. Also, a new DOGM No. has been applied for for the LLC.

The name and address change is as follows:

OLD: Navajo Nation Oil & Gas Co.

1675 Broadway, Suite 1100

Denver, CO 80202

(DOGM Operator No. N2550)

NEW: NNOGC Exploration and Production, LLC

1625 Broadway, Suite 1000

Denver, CO 80202

Should you require any additional information please contact me at 303-534-8300.

Sincerely,

Katie Hynes

Associate Landman

Katil Hynor

This space for State use only)	DEC	3 1 2012	RECEIVED
SIGNATURE XULLI	Terminary APPF	ROVED 4/14/	/2
NAME (PLEASE PRINT) Lauren C	Serminario	Land Manage	r
Effective Jul	4 10,3010		
•	Bond No. RL	-B0006712	÷
The new Entity is:	NNOGC Explorati 1625 Broadway, S Denver, CO 8020	^^	n No.: <u>3930</u>
-	for the LLC is: 8399948-0165.		
The Navajo Nation Oil at change applies to all we	nd Gas Co. has registered its new list currently operated by DOGN N	entity with the State of Utah.	
	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATI	
Date of work completion:	CHANGE WELL STATUS  COMMINGLE PRODUCING FORMATIONS	PRODUCTION (START/RESUME)  RECLAMATION OF WELL SITE	WATER SHUT-OFF OTHER:
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE TUBING CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE PLUG AND ABANDON	TUBING REPAIR  VENT OR FLARE
(Submit in Duplicate)  Approximate date work will start:	ALTER CASING CASING REPAIR	FRACTURE TREAT  NEW CONSTRUCTION	SIDETRACK TO REPAIR WELL  TEMPORARILY ABANDON
NOTICE OF INTENT	ACIDIZE	DEEPEN DEEPEN	REPERFORATE CURRENT FORMATION
11. CHECK APP	PROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REI	PORT, OR OTHER DATA
QTR/QTR, SECTION, TOWNSHIP, RA			UTAH
FOOTAGES AT SURFACE: See			COUNTY: San Juan
1675 Broadway, Suite 1100 C	Denver STATE CO ZIF	80202 (303) 534-8300	various
Navajo Nation Oil & Gas		PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:  Various
2. NAME OF OPERATOR:	00		9. API NUMBER: Various
1. TYPE OF WELL OIL WELL		ioni ioi odon proposato.	WELL NAME and NUMBER:     See Attached
Do not use this form for proposals to dril	I new wells, significantly deepen existing wells below cu I laterals. Use APPLICATION FOR PERMIT TO DRILL	rrent bottom-hole depth. reenter plugged wells, or form for such proposals	7. UNIT or CA AGREEMENT NAME:
SUNDR	Y NOTICES AND REPORT	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo Nation
	DIVISION OF OIL, GAS AND M		5. LEASE DESIGNATION AND SERIAL NUMBER: See Sttached
	STATE OF UTAH DEPARTMENT OF NATURAL RESOU	RCES	

BY: Rachel Medina (See Instructions on Reverse Side)

DIV. OIL GAS & MINING .

DIV. OF OIL, GAS & MINING

SEP 1 7 2012

## STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS AND MINING						1 -	ASE DESIGNATION AND SERIAL NUMBER:	
							ndian, allottee or tribe name: vajo Nation	
Do	not use this form for proposals to drill r drill horizontal l	new wells, significantly deepen e	existing wells below co	irrent bo	ottom-hole dep	th, reenter plugged wells, or to	7. UN	T or CA AGREEMENT NAME:
	YPE OF WELL OIL WELL			10111710	duoi, proposs		8. WE	ELL NAME and NUMBER:
	AME OF OPERATOR:	Co						NUMBER:
	avajo Nation Oil & Gas (	<u> </u>				PHONE NUMBER:		ELD AND POOL, OR WILDCAT:
P.C	). Box 5069 <sub>CIT</sub>	Y Window Rock	STATE AZ	<sub>3</sub> 865	15	(303) 534-8300	Va	rious
	OCATION OF WELL OOTAGES AT SURFACE:						COUN	ту: San Juan
Q.	TR/QTR, SECTION, TOWNSHIP, RAN	√GE, MERIDIAN:					STATE	: UTAH
11.	CHECK APPI	ROPRIATE BOXES	TO INDICA	TE N	ATURE	OF NOTICE, REF	ORT, C	R OTHER DATA
	TYPE OF SUBMISSION				T	YPE OF ACTION		
	NOTICE OF INTENT	ACIDIZE			DEEPEN			REPERFORATE CURRENT FORMATION
	(Submit in Duplicate)	ALTER CASING			FRACTURE	TREAT		SIDETRACK TO REPAIR WELL
	Approximate date work will start:	CASING REPAIR			NEW CONS			TEMPORARILY ABANDON
		CHANGE TO PREVIOU	JS PLANS	<u></u>	OPERATOR			TUBING REPAIR
<b>17</b> 1	OURSES VENT DEDORT	CHANGE TUBING			PLUG AND A			VENT OR FLARE
Z	SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME			PLUG BACK			WATER DISPOSAL
	Date of work completion:	CHANGE WELL STATE				ON (START/RESUME)	닏	WATER SHUT-OFF
		COMMINGLE PRODUC				ON OF WELL SITE		OTHER:
		CONVERT WELL TYPE		<u> </u>		TE - DIFFERENT FORMATIC		
12.	DESCRIBE PROPOSED OR CO	OMPLETED OPERATIONS.	Clearly show all	pertine	nt details inc	cluding dates, depths, volu	umes, etc.	
to a	e Navajo Nation Oil & G all the wells that have re 550)							and address change applies & Gas Co. (DOGM No.
The	e Utah Entity Number fo	or the LLC is: 8399	948-0165					
No	te: A new DOGM No.	, has been applied fo	or NNOGC E	xplor	ation and	d Production, LLC		
Ple	ease see the attached li	st of wells that will r	now be opera	ted b	y:	NNOGC Explora 1625 Broadway, Denver, CO 802	Suite 10	Production, LLC 00
All	of these wells are cove	red by Bond No. RL	.B0006712					
E£	fective: Aug	1,3012		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
NAME	(PLEASE PRIMI) Lauren Ge	rminario			TITLE	Land Manager		The contribution of the co
		kuminaw	-		DATE	9/18/2012		
This sp	ace for State use only)	PROVED	<u> </u>					proeiveo

DIV. OIL GAS & MINING BY: Rachel Medina SEP 1 C 2002

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR		FORM 9				
	5.LEASE DESIGNATION AND SERIAL NUMBER: NOG-8308-1033						
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO						
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.		7.UNIT or CA AGREEMENT NAME:				
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: NAVAJO TRIBAL 14-10				
2. NAME OF OPERATOR: NNOGC EXPLORATION & PR	RODUCTION, LLC		9. API NUMBER: 43037309770000				
3. ADDRESS OF OPERATOR: 1625 Broadway, Suite 1000	) , Denver , CO, 80202	PHONE NUMBER: 303 910-9525 Ext	9. FIELD and POOL or WILDCAT: GREATER ANETH				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0250 FSL 0460 FWL			COUNTY: SAN JUAN				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSW Section:	HIP, RANGE, MERIDIAN: 10 Township: 40.0S Range: 24.0E Mer	ridian: S	STATE: UTAH				
11. CHEC	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
	ACIDIZE	ALTER CASING	CASING REPAIR				
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION				
11/9/2012							
_	OPERATOR CHANGE	✓ PLUG AND ABANDON	L PLUG BACK				
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL				
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION				
	WILDCAT WELL DETERMINATION	OTHER	OTHER:				
12 DESCRIBE PROPOSED OR		v all pertinent details including dates	denths volumes atc				
After receiving verbal approval from Steve Mason (BLM) on 11/7/2012, moved out Key Energy - Rig #12 and P&A well as follows: Set CICR at 5500'. Mix & pump 107 sx (123cf) below retainer before pressure increased to 1900 psi, sting out leaving 108 sx (124 cf) of cement on top of retainer. SDON, TIH & tag cement at 5290'. Pull & spot 20 sx (23cf) of cement f' 4633'-4483'. (Hermosa top at 4589'). TOH. Perforate (2 spf) at 1600'. Set CICR at 1550'. Open braden head - no flow. Mix & pump 65 sx (74.8 cf) of cement below retainer, stated circulating out braden head. Continued pumping cement. Pumped a total of 104 bbls of cement (495 sx/ 569 cf) but never got cement to surface through braden head. Sting out of retainer leaving - 71 sx (82 cf) of cement on top of retainer. Pull up & reverse hole clean at 1100'. TOH & SDON. RIH w/ perf guns & tag top of cement at 1101'. Pull up and perforate 2 spf at 130'. Mix & pump 61 sx (70cf) to surface through braden head and filling casing to surface. WOC. Cut off casing 3.5' below surface and install P&A marker. Cut off rig anchors & back fill hole. Finish operations							
11/9/2012. Note:		rom Steve Mason to proc	eed with P&A operations on				
NAME (PLEASE PRINT)	PHONE NUM		- 1				
Timothy Phillips	505 599-6060	Petroleum Engineer					
SIGNATURE N/A		<b>DATE</b> 5/22/2014					

RECEIVED: May. 22, 2014

Reset Form		FORM 9					
		5. LEASE DESIGNATION AND SERIAL NUMBER: NOG 8308-1033					
SUNDR		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO NATION					
	I new wells, significantly deepen existing wells below curr laterals. Use APPLICATION FOR PERMIT TO DRILL fo			or CA AGREEMENT NAME:			
1. TYPE OF WELL OIL WELL		minor such proposatio.	NAV	8. WELL NAME and NUMBER: NAVAJO TRIBAL 14-10			
2. NAME OF OPERATOR:  NAVAJO NATION OIL A	ND GAS COMPANY			NUMBER: 8730977			
	TTY WINDOW ROCK STATE AZ ZIP	-		D AND POOL, OR WILDCAT: EATER ANETH FIELD			
4. LOCATION OF WELL  FOOTAGES AT SURFACE: 250'	FSL 460'FWL		COUNT	r: SAN JUAN			
	ANGE, MERIDIAN: SWSW 10 40S 2	4E	STATE:	UTAH			
11. CHECK APP	PROPRIATE BOXES TO INDICAT	E NATURE OF N	IOTICE, REPORT, OF	R OTHER DATA			
TYPE OF SUBMISSION		_	OF ACTION				
NOTICE OF INTENT	ACIDIZE	DEEPEN	Ц	REPERFORATE CURRENT FORMATION			
(Submit in Duplicate)  Approximate date work will start:	ALTER CASING  CASING REPAIR	FRACTURE TREAT  NEW CONSTRUCT		SIDETRACK TO REPAIR WELL TEMPORARILY ABANDON			
Approximate date work will start.	CHANGE TO PREVIOUS PLANS	OPERATOR CHANG		TUBING REPAIR			
	CHANGE TUBING	PLUG AND ABAND		VENT OR FLARE			
✓ SUBSEQUENT REPORT	CHANGE WELL NAME	PLUG BACK		WATER DISPOSAL			
(Submit Original Form Only)	CHANGE WELL STATUS	PRODUCTION (STA	RT/RESUME)	WATER SHUT-OFF			
Date of work completion:	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF		OTHER:			
11/9/2012	CONVERT WELL TYPE		FFERENT FORMATION	OTTLER.			
After receiving verbal ap follows: Set CICR at 550 108 sx (124 cf) of cemer 4633'-4483'. (Hermosa to pump 65 sx (74.8 cf) of cof 104 bbls of cement (45 sx (82 cf) of cement on to cement at 1101'. Pull up to surface. WOC. Cut off operations 11/9/2012.	proval from Steve Mason (BLM) or 0'. Mix & pump 107 sx (123cf) below to not po of retainer. SDON, TIH & top at 4589'). TOH. Perforate (2 spfeement below retainer, stated circu 95 sx/569 cf) but never got cement pop of retainer. Pull up & reverse hop and perforate 2 spf at 130'. Mix & perforate 3.5' below surface and instead of the proval from Steve Mason to proceed	n 11/7/2012, move ow retainer before tag cement at 529 ) at 1600'. Set Cli- lating out braden it to surface throu- ble clean at 1100'. pump 61 sx (70cf tall P&A marker. (	ed out Key Energy - Repressure increased to po'. Pull & spot 20 sx (CR at 1550'. Open bracked. Continued puming braden head. Sting TOH & SDON. RIH word to surface through brown of rig anchors & bear the surface through brown of the surface through brown of the surface through brown of the surface through brown of the surface through brown of the surface through brown of the surface through brown of the surface through brown of the surface through brown of the surface through the su	o 1900 psi, sting out leaving 23cf) of cement f' aden head - no flow. Mix & ping cement. Pumped a total out of retainer leaving - 71 of perf guns & tag top of aden head and filling casing ack fill hole. Finish			
NAME (PLEASE PRINT) _ Tim Phill	ips	TITLE E	ngineer				
SIGNATURE Tim Ph	Eillips	DATE 5	/22/2014				

(This space for State use only)

RECEIVED: May. 22, 2014

#### **INSTRUCTIONS**

This form shall be submitted by the operator to show the intention and/or completion of the following:

- miscellaneous work projects and actions for which other specific report forms do not exist;
- all other work and events as identified in section 11, Type of Action, or as required by the Utah Oil and Gas Conservation General Rules, including:
  - minor deepening of an existing well bore,
  - plugging back a well,
  - recompleting to a different producing formation within an existing well bore (intent only),
  - reperforating the current producing formation,
  - drilling a sidetrack to repair a well,
  - reporting monthly the status of each drilling well.

#### This form is not to be used for proposals to

- drill new wells,
- reenter previously plugged and abandoned wells,
- significantly deepen existing wells below their current bottom-hole depth,
- drill horizontal laterals from an existing well bore,
- drill hydrocarbon exploratory holes such as core samples and stratigraphic tests.

Use Form 3, Application for Permit to Drill (APD) for such proposals.

**NOTICE OF INTENT** - A notice of intention to do work on a well or to change plans previously approved shall be submitted in duplicate and must be received and approved by the division before the work is commenced. The operator is responsible for receipt of the notice by the division in ample time for proper consideration and action. In cases of emergency, the operator may obtain verbal approval to commence work. Within five days after receiving verbal approval, the operator shall submit a Sundry Notice describing the work and acknowledging the verbal approval.

**SUBSEQUENT REPORT** - A subsequent report shall be submitted to the division within 30 days of the completion of the outlined work. Specific details of the work performed should be provided, including dates, well depths, placement of plugs, etc.

**WELL ABANDONMENT** - Proposals to abandon a well and subsequent reports of abandonment should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, and method of parting of any casing, liner, or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

In addition to any Sundry Notice forms submitted, **Form 8, Well Completion or Recompletion Report and Log** must be submitted to the division to report the results of the following operations:

- completing or plugging a new well,
- reentering a previously plugged and abandoned well,
- significantly deepening an existing well bore below the current bottom-hole depth,
- drilling horizontal laterals from an existing well bore,
- drilling hydrocarbon exploratory holes such as core samples and stratigraphic tests,
- recompleting to a different producing formation.

Send to:

Utah Division of Oil, Gas and Mining Phone: 801-538-5340

1594 West North Temple, Suite 1210

Box 145801 Fax: 801-359-3940

Salt Lake City, Utah 84114-5801

(5/2000)

RECEIVED: May. 22, 2014

## Navajo Tribal 14-10 Greater Aneth Field San Juan County, UT API # 43-037-30977

## 11/3/2012

Spud Date:

1/8/1985

Surface Casing:

85/8" 24# J55 @1549', cmt circ to surface

Production Casing:

5½" 15.5# J55 @, 5,820'

TOC behind pipe @≈4,100' by temp survey

Tubing:

21/8" 6.5# J55 EUE 8 Rd (177 jts)

Tubing anchor @ 5,519' End of tubing @ 5,713'

Rods:

56 1/8" rods

171 3/4" rods

Perforations:

5,576' - 82' (6')

5,620' - 28' (8')

PBTD:

5,763

## Recommended P&A Procedure (General)

- 1. Obtain verbal approval for emergency P&A from the State of Utah, Department of Natural Resources, Oil, Gas & Mining Division. A copy of Utah Statewide rule R649-3-24 Plugging and Abandonment of Wells is attached for reference.
- 2. Build 200 Bbls of good quality 18.0 ppg water based mud. Please note in previous communications I have been referring to an 18.0 ppg mud weight to kill the well. Resolute field personnel should be consulted on this matter to determine historical mud weights used in similar situations in the past. Use a mud weight of adequate density to kill and maintain control of the well to assure safe wellsite operations to abandon the well. The table shown below has been constructed to show the hydrostatic pressure (psi) that a column of mud (ppg) exerts at the perforations. A column of 18.0 ppg mud will exert 5,243 psi at 5,602' (mid perf). 15.0 ppg mud will exert 4,370 psi at 5.602' (mid perf), etc.

Perfs @ 5,576' - 82' (6') 5,620' - 28' (8') 52' gross height between top perf & bottom perf 5,602' mid perf

Hydrostatic head (psi) of a column of mud (ppg) exerted at a depth (feet)

	Depth ↓	Mud Weight (ppg)											
		13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	100	1000
Top Perf	5,576	3,769	3,914	4,059	4,204	4,349	4,494	4,639				18.0	18.5
	5,582	3,773	3,919	4,064	4,209	4,354	4,499	4,644	4,784	4,929	5,074	5,219	5,364
Mid Perf	5,602	3,787	3,933	4,078	4,224	4,370	4,515		4,789	4,934	5,080	5,225	5,370
	5,620	3,799	3,945	4,091	-	-	-	4,661	4,807	4,952	5,098	5,243	5,389
Btm Perf	5,628	3,805	3,951	4,091	4,237 4,244	4,384 4,390	4,530 4,536	4,676 4,682	4,822 4,829	4,968 4,975	5,114 5,121	5,260 5,268	5,406 5,414

- 3. MIRU workover rig, pump truck and kill mud.
- 4. Tie into casing and lubricate kill mud down backside. Attempt to circulate up tubing.
- 5. POOH with rods and insert pump.
- 6. Release tubing anchor and POOH with tubing.
- 7. TIH with a tubing-set cement retainer. Set cement retainer at ≈5,500'.
- 8. Pump a minimum of 150 sx cement below cement retainer.
- 9. Sting out of cement retainer and spot enough cement so top of plug is at 5344' (which includes 50 ft excess). Upper Ismay at 5444'.
- 10.TOH & WOC.
- 11.TIH & confirm cement top.
- 12. If top is OK, spot 150 ft cement plug from 4639' 4489' (Hermosa top 4589'). ~ 17 sx (20 cf). Note: top of cement behind 5-1/2" from primary cement job is reported to be at ~ 4100'.
- 13.TOH & WOC.
- 14.RIH & perforate (2 spf) at 1600'.
- 15.TIH and set CICR at 1550' (8-5/8" surface casing reported to be set at 1549'). Mix and pump ~ 65 sx (77 cf). Cement inside casing needs to cover perf holes at 1600' to 1450' (which includes 50 ft excess) and out side casing from 1600' to 1450' (which includes 100% excess). Note: top of Chinle formation is 1529'.
- 16.RIH & perforate (2 spf) at 130'. As per the new guidelines, dig out & open the braden head and check for flow (out the braden head) for 30 mins after perforating the 5-1/2" casing. If well is flowing out braden head, notify office to conference with BLM. If no flow after 30 minutes, proceed to next step.
- 17. With the braden head open, establish injection rate from surface. Attempt to circulate out braden head. Mix & pump ~ 60 sx (71 cf) of cement (100%)

excess to fill up 8-5/8"/5-1/2" annulus plus fill up 5-1/2" casing). If circulating out bradenhead continue pumping until good cement returns out bradenhead are achieved.

- 18. Top off inside if 5-1/2" casing w/ additional cement if necessary.
- 19.Cut off well head & install P&A marker.
- 20. Remove all surface facilities & pipelines as per the BLM COA's.
- 21.Re-contour && re-claim location as per BLM COA's.

Note: All cement volume calculations are based on a yield of 1.18 cf/sx. Actual volumes will need to be re-calculated and verified in the field depending upon actual cement type and additives.

Plug volumes were calculated to follow BLM guidelines of having 50 ft of cement above and below formation tops with 50 ft excess inside casing and 100% by volume excess outside casing.

John Thompson NNOG 505.320.1748

# Tribal Well 14-10 Wellbore Schematic

